

The Mining Journal.

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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MR. JAMES H. CROFTS, STOCK AND SHARE DEALER,
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.
ESTABLISHED 1842.

BUSINESS transacted in all descriptions of MINING STOCKS and SHARES (British and Foreign), Consols, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.

BUSINESS negotiated in STOCKS and SHARES not having a general market value.

Every Friday a GENERAL and RELIABLE LIST issued (a copy of which will be forwarded on application), containing closing prices of the week.

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TELEPHONE NUMBER 1003.

FOR SALE, SHARES in the following MINING COMPANIES:—

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ditto, 17s. 6d. paid.	Gunnislake (Clitters).	Rhodes Reef.
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Bedford United.	Home Mines Trust.	Schwab's Gully.
Bratsberg.	Indian Consolidated.	Spitzkop.
Cankim Bamoo.	Indian Glenrock.	South Caradon.
Carn Camborne.	Javali.	South Condurrow.
Callao Bis.	Kapanga.	South Darren.
Colombian Hydraulic.	Killifreth.	South East Wynad.
Consolidated.	Kongsberg.	South Devon United.
Colorado.	La Plata (New).	South Penstruthal.
Canada Copper.	Last Chance.	Tambacherry.
Chontales.	Leadhills.	Tankerville Gt. Con.
Cor. South Australian.	Lisbon-Berlyn.	Tollima A.
Copper.	Marke Valley.	ditto B.
Davalis Moyer.	Michipicoten.	Transvaal Gold.
Devon Consols.	Mon.	Tresavean.
Devon Friendship.	Mounts Bay.	United Mexican.
Devon United.	Myosore Gold.	Victoria Gold.
Dolcoath.	New Caradon.	Van.
Don Pedro.	New Callao.	Wheal Agar.
Drakewalls.	New Emma.	Wheal Basset.
Duchy Fern.	New Quebrada.	Wheal Callao.
East Blue Hills.	North Blue Hills.	Wheal Phoenix.
Eberhardt.	New Kitty.	Wheal Caradon.
East Caradon.	Nouveau Monde.	Wheal Crebor.
East Lovell.	North Penstruthal.	Wheal Polbreen.
East Wheal Rose.	New West Caradon.	Wheal Poldice.
Econ.	Old Shepherds.	Wheal Orebor.
Flagstaff.	Organo.	Wheal Jane.
Frongoch.	Orita.	Wheal Kitty.
Frontino.	Oscar.	Wheal Silver & Lanteglos.
Goginan.	Potosi (Old).	Wynad Perseverance.
Gold Coast.	Port Phillip.	
Grogwinion.	Parys Copper.	
	Phoenix United.	
	Panulicillo.	
	Prince of Wales.	
	Pestarens.	

* ANY OF THE ABOVE SHARES WILL BE SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.

* BUSINESS at CLOSE PRICES in all Market TIN, COPPER, and LEAD SHARES.

JAMES H. CROFTS, 1, FINCH LANE, LONDON

RAILWAYS—SPECIAL BUSINESS.—Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

FOREIGN BONDS—SPECIAL BUSINESS.—Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

AMERICAN AND CANADIAN STOCKS AND SHARES—SPECIAL BUSINESS.
Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

GOLD AND SILVER MINES.—SPECIAL BUSINESS in ALL marketable INDIAN GOLD SHARES, and in Colombian Hydraulic, Callao, Callao "Bis," Gold Coast, Guinea Gold Coast, Kongsberg, New Callao, Oscar, West Callao, Tollima A, Tollima B, La Plata, Rio Tinto, Frongoch, and Bolivia, Potosi, Chile, Nouveau Monde, Ruby, Richmond, Victoria.

* SHARES in the ABOVE SOLD FOR FORWARD DELIVERY ONE, TWO, OR THREE MONTHS ON DEPOSIT OF TWENTY PER CENT.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

MISCELLANEOUS SHARES of all DESCRIPTIONS BOUGHT or SOLD—SPECIAL BUSINESS.—Brighton Aquarium, General Credit, London's Bay, Native Guano, Suez Canal, Westminster Aquarium, and Hotel Shares.

SHARES SOLD FOR FORWARD DELIVERY, ONE, TWO, OR THREE MONTHS, ON DEPOSIT OF TWENTY PER CENT.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

OSCAR GOLD.—SPECIAL BUSINESS in either the FULLY or PARTLY PAID shares.
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TRANSVAAL GOLD AND SOUTH AFRICAN DIAMOND FIELDS. SPECIAL BUSINESS in all Transvaal Shares, including LISBON-BERLYN, TRANSVAAL, SPITZKOP, SCHWAB'S GULLY.

* SHARES in the ABOVE SOLD FOR FORWARD DELIVERY ON DEPOSIT OF TWENTY PER CENT.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

MR. W. H. BUMPUS, STOCK AND SHARE BROKER,
and MINING SHARE DEALER.
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ESTABLISHED 1867.

BUSINESS transacted in STOCK EXCHANGE SECURITIES and MISCELLANEOUS SHARES of every description.

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Asia Minor.	100 Gold Coast.	75 Prince of Wales.
Bratsberg.	100 Home Mines Trust.	50 Polbreen.
Birdseye Creek.	25 Killifreth.	30 Panulicillo.
Chontales.	50 Kapanga.	100 Pen-yr-Oreadd.
Colombian Hydraulic.	100 Lake Superior.	50 Roman Gravel.
Chile Gold.	150 La Plata.	50 Ruby.
Cankim Bamoo.	25 Leadhills.	40 Richmond.
Callao Bis.	150 Lisbon-Berlyn.	100 South Caradon.
Callao Bis.	20 Miners.	50 Tresavean.
Dolcoath.	100 Montana.	15 Tollima A.
Devon Consols.	100 Mounts Bay.	250 Tocopilla.
East Wheal Rose.	100 New Callao.	50 United Mexican.
Eberhardt.	200 Nouveau Monde.	50 Wheal Coates.
Econ.	50 N. Trumpet Consols.	15 West Gendolphin.
Frontino.	30 New Kitty.	15 Wheal Grenville.
Frongoch.	50 Organo.	10 West Kitty.
	50 Orita.	50 Wheal Orebor.
	150 Old Shepherds.	70 Wheal Polbreen.

N.B.—Prices of the above on application, or offers may be made. Several lots of shares in this list are for sale considerably under the prices at which they are quoted in Circulars and elsewhere.

SPECIAL BUSINESS, at close prices, in the SHARES of all the principal HOME and FOREIGN MINES.

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WILLIAM HENRY BUMPUS, SWORN BROKER.

OFFICES: 44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1867.

BRITISH AND FOREIGN MINING OFFICES.

MESSRS. PETER WATSON AND CO.,
18, AUSTIN FRIARS,
OLD BROAD STREET, LONDON, E.C.
BANKERS: THE ALLIANCE BANK (Limited).

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BANKERS: LONDON AND WESTMINSTER.

JOHN RISLEY, STOCK AND SHARE BROKER,
and MINING SHARE DEALER,
32, CORNHILL, LONDON, E.C.
ESTABLISHED 1860.
BANKERS: LONDON AND WESTMINSTER, Lothbury, E.C.

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ESTABLISHED 1862.
BANKERS: LONDON AND WESTMINSTER, Lothbury, E.C.

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JOHN LENN AND CO.'S CIRCULAR, POST FREE,
contains Highest, Lowest, Latest Prices of all Stocks and Shares, also shows the return per cent. at a glance.

JOHN LENN AND CO.'S CIRCULAR, POST FREE.
The advice given in their former Circulars has enabled investors to make from 50 to 150 per cent. in a week.

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contains special information respecting the safest investments obtainable, paying from 5 to 12 1/2 per cent.

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50 Almada.	100 Kapanga.	50 Prince of Wales.
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25 California Gold.	50 La Plata.	15 Roman Gravel.
30 Callao Bis.	80 Mounts Bay.	20 Ruby.
50 Chile Gold.	40 Montana.	20 Richmond.
75 Chontales.	25 New West Caradon.	20 South Caradon (Ltd.).
100 Colombian.	75 Nouveau Monde.	10 Tollima A and B.
20 Colorado.	20 Organo Gold.	50 Tregontrees.
15 Devon Consols.	25 Old Shepherds.	15 United Mexican.
25 East Rose.	25 Oscar Gold.	75 Victoria.
40 Frontino.	20 Panulicillo.	50 Wheal Orebor.
20 Great Holway.	100 Port Phillip.	5 Western Andes Gold
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VICTORIA GOLD (Venezuela).—Business in the shares either as buyer or seller.

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BANKERS: ALLIANCE BANK (Limited).

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SPECIAL BUSINESS in the following:—

60 Akankoo.	100 Carn Camborne.	60 Old Shepherds.
50 Alamillos.	90 Chile.	80 Organo.
40 Australian.	80 Colorado.	160 Orita.
60 Bratsberg.	100 East Wheal Rose.	40 Oscar Gold.
200 Callao Bis.	80 Kapanga.	80 Wheal Crebor.

AMERICAN RAILWAYS.—Business continues to be on an increased scale. Since calling attention to Central Pacific and Lake Shore, the advance has been 6, and in the others from 1 1/2 to 3.

The following are still worth attention:—Central Pacific, Eries, Illinois, Lake Shore, Louisville, and Readings.

Fortnightly accounts opened in Home Railways, Foreign Bonds, American and Canadian Railways, on receipt of the usual cover.

BANKERS: LONDON AND WESTMINSTER, Lothbury.

MR. CHARLES THOMAS,
MINING AGENT AND ENGINEER,
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MR. ALFRED THOMAS,
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BANKERS: CITY BANK, Threadneedle-street, E.C.

MR. J. GRANT MACLEAN,
SHAREBROKER AND IRONBROKER, STIRLING, N.B.,
Refers to his Share Market Report on page 382 of to-day's Journal.

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TRANSACTS BUSINESS at close prices in all CORNISH MINES.
Advice and information to intending investors.

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ESTABLISHED 1866.—THIRTEEN YEARS IN CORNWALL.

SAMUEL JAMES, STOCK BROKER AND MINING SHARE DEALER, 14, ANGEL COURT, LONDON, E.C.

Member of the Redruth Mining Exchange.

Those who wish to buy or sell any mining shares should consult Mr. JAMES. Mr. J. devotes his entire attention to home and foreign mines, and places his special information at the disposal of his clients. That mining offers undoubted advantages for quick returns no one can deny. Look at the enormous sums of money paid in dividends by home and foreign mines. A large number of wealthy families owe their present proud positions to adventuring in LEGITIMATE MINES. With a better price for metals many of the smaller priced shares would immediately advance some hundreds per cent.

OSCAR GOLD SHARES SHOULD BE BOUGHT AT ONCE.

There are many mines worth attention, as proceedings of recent shareholders' meetings prove beyond doubt. During the last 40 years there has no such opportunity presented itself as the present for investment in British mines. Metals are certain to advance. In well-informed circles no doubt is entertained on this point. Buyers must not further delay orders.

See Selected List published by S. JAMES, 14, Angel-court, London, E.C.

SPECIAL BUSINESS in the following or part:—

50 Bedford United.	25 South Caradon.	100 Colombian Hydraulic.
40 Carn Camborne.	10 South Condurrow.	100 Corp. Sth. Austr. Cop.
5 Cook's Kitchen.	10 South Darren.	35 Denver Gold.
120 Collacombe Consols.	23 South Devon United.	100 Flagstaff District.
50 D'Eresby Mountain.	10 South France.	40 Frontino.
20 Devon Consols.	60 Tamar.	20 Gold Coast.
20 Devon Friendship.	100 Tresavean.	100 Hoover Hill.
100 Devon United.	30 Tankerville Gt. Cons.	50 Indian Consolidated.
100 Drakewalls.	20 Trevaunance.	100 Indian Glenrock.
5 Dolcoath.	80 West Caradon.	100 Javali.
50 East Blue Hills.	50 West Orebor.	100 Kohinoor B.
25 Econ.	80 West Gonamena.	80 Kapanga.
100 East Caradon.	20 West Kitty.	25 La Plata.
100 East Wheal Rose.	25 West Poldice.	50 Last Chance.
20 Frongoch.	20 Wheal Basset.	80 Lisbon-Berlyn.
100 Goginan.	50 Wheal Coates.	30 Montana.
10 Great Laxey.	50 Wheal Orebor.	50 New Emma.
20 Gunnislake (Clitters).	95 Wheal Jane.	100 Nouveau Monde.
35 Great Holway.	80 Wheal Silver & Lanteglos.	15 Oscar Gold, 7s. 6d. pd.
150 Home Mines Trust.		40 Organo.
20 Killifreth.		20 Orita.
20 Kit Hill Great Cons.	290 Antioquia.	100 Potosi, New.
10 Kitty St. Agnes.	50 Asia Minor.	15 Port Phillip.
100 Mounts Bay Consols.	5 Akankoo (fully paid).	15 Panulicillo.
25 New Kitty.	50 Birdseye Creek.	50 Ruby & Dunderberg.
20 New Caradon.	20 Bratsberg.	20 Richmond.
30 Old Gunnislake.	50 Cartago, 7s. 6d. paid.	100 Tacuash.
200 Old Shepherds.	50 Cankim Bamoo.	35 Tocopilla.
10 Phoenix United.	10 Copiapo.	5 Tollima A.
20 Polberro.	10 California Gold.	25 Transvaal Gold.
50 Prince of Wales.	50 Callao Bis.	20 United Mexican, New
10 Parys Copper.	100 Chile.	100 Victoria Gold.
10 Roman Gravel.	75 Chontales.	100 West Callao.

* S. JAMES can buy or sell any of the above shares. Correspondence invited. Trustees, executors, and others will find their duties considerably lightened by submitting schedule of shares held to Mr. JAMES, who will return the same by next post with market values attached.

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In order to save correspondence and shareholders from loss, we feel it to be our duty to publicly state that there is NO FOUNDATION WHATSOEVER for the damaging statements that have been made by certain Dealers and Brokers respecting the above Mine. The object of such statements is to induce holders to sell at ruinous prices, and thus enable the parties in question to supply shares they have sold at much higher prices, BUT CANNOT DELIVER.

Our confidence in the Mine is unabated; its position and surroundings are a guarantee of success on further development; and if shareholders wish to sacrifice their shares for a few shillings, we will gladly buy them. But our advice is—BUY all the shares that can be obtained at prices quoted in the Lists which interested Brokers circulate; BUT BE CAREFUL NOT TO PAY FOR THEM UNTIL THE CERTIFICATE IS DELIVERED.

By adopting this course shareholders will frustrate the tactics of those whose only object is to depreciate the value of their property from the most sordid of motives, whilst they do not hesitate to adopt the most unscrupulous methods to accomplish their object.

ENDEAN AND CO., STOCK AND SHARE DEALERS,
85, GRACECHURCH STREET, LONDON, E.C.

MINERAL RESOURCES OF ITALY.

The latest official mining statistics are those for 1881. According to the report of the Government engineer (Notizie Statistiche sulla Industria Mineraria in Italia dal 1860 al 1880-81) from which the following particulars have in part been compiled few new concessions were granted during the year, and as regards this district the only fresh workings registered were for lignite at Ghivizzano, in the valley of the Serchio, above the baths of Lucca. This concession comprised an area of about 700 acres. The beds, varying from 1 metre to 1.50 metre in thickness, shows an inclination of 15° to S.W. towards the river. During the same period researches for copper in some old workings at Gerfalco, near Montieri, in the province of Grosseto, were discontinued. Excavations for manganese at Monte Labbro and Poggi Pajolaio, near Roccalbenga, also in the province of Grosseto, were likewise suspended, the results obtained not proving remunerative.

The Island of Elba, which at the end of the last century belonged to the princes of Piombino, was finally ceded to Napoleon I. in 1802. By the Treaty of Vienna in 1815 the island reverted to the Tuscan Grand Ducal Government by whom the mines were worked until 1815. In that year the Government having contracted a loan of 10,080,000 lire with the firm of Bastogi, of Leghorn, a joint-stock company was formed, under which the mines were to be worked for 30 years—from 1851 to 1881. In the meantime with the union of Italy the mines of Elba necessarily became the property of the State; and when on June 30, 1881, the concession referred to above came to an end, the mines, together with the foundries of Follonica, Cecina, and Valbianco, were leased to a group of capitalists represented by the General Bank of Italy. The new concession is for three years, dating from July 1, 1881. The lessees pay a royalty of 5 lire 60 c. per ton of ore exported from Elba and the neighbouring island of Giglio. The maximum annual output was not to exceed 200,000 tons. Up to 1870 the exports had never exceeded 95,000 tons in the year; but during the last 15 years of the late concession they had averaged 173,000 tons annually, until in 1881 the output reached 403,215 tons, representing a value of 4,395,043 lire.

It has been the not unnatural desire of successive Italian administrators, dating from the time of Cavour, to make Italy self-dependent as regards war material, and so far back as 1864 a project was laid before the Chambers for the erection of iron and steel works on an extensive scale in connection with these mines. The scheme, however, fell flat on the House, and a change of Ministry caused it to be temporarily shelved. In 1876 a committee appointed to enquire into the matter reported that to erect works capable of supplying the then requirements of the Government establishments would necessitate an outlay of over 10,000,000 lire (400,000 £ sterling).

In 1878 grave doubts arose as to the amount of ore existing in the Elba Mines, and it was calculated that if the annual output was to be maintained at the rate of 1881 (400,000 tons) the mines would be exhausted in 30 years. From various causes the project has up to the present remained in suspense; but there is reason to believe that it continues to occupy the attention of the Government, and it is evident that the brief duration of the existing lease and the limitation of the quantity of ore to be mined were dictated by a natural desire on the part of the Government not to diminish the deposits of ore materially, nor to pledge the mines too far ahead, pending a decision as to the erection of steelworks.

Signor Fabri, the Government Inspector of Mines, writing on this subject in 1880, pointed out some of the difficulties with which it is beset. They are:—The necessity of importing coal fuel from abroad; the great outlay required to erect works in connection with mines which are within a measurable distance of extinction, it being estimated that a yield of ore sufficient to produce 50,000 tons annually would exhaust them in 50 years; and lastly, a probable gradual rise in price of Elba ores, so that the works would have small advantage over foreign furnaces, while the argument on which much stress has been laid—of compensating the greater cost of fuel by the extremely low price of the ore and cheaper labour would partly fall to the ground. It appears, however, that since the date of the above report fresh surveys have been held, and it is estimated that the deposits still existing above the sea level exceed 7,000,000 tons. But judging from the inclination of the dykes of ore it is probable that the total quantity will prove to be much larger, and 10,000,000 to 12,000,000 have been stated as approximate figures. It appears also that along the shore under water, in the vicinity of Rio Marina, there exist very large accumulations of iron ore in fine sand or particles of a micaceous character. These deposits are very rich in metallic iron, and have been formed no doubt by the discharge into the sea of water used in washing the "gettate," or mounds of rubbish which have accumulated during successive ages. By dredging these deposits also could be made available.

The Elba ores, says a reliable authority, are generally rich, yielding on an average 53 per cent. of metal, and free from appreciable quantities of phosphoric acid, but they generally contain somewhat more sulphur than is desirable in ores intended for steel making purposes if used alone. It has, however, been pointed out by the Italian Mining Department that by an admixture with them of the calcareous and manganiferous ores from the mines of Monte Argentario pig-iron may be produced of the highest quality, containing some manganese, and free from any excess of sulphur, and especially adapted for conversion into steel. The one drawback to the establishment of steelworks in connection with the Italian mines arises from the fact that Italy possesses no coal deposits within its boundaries. There are indeed numerous mines of lignite in different parts of the peninsula, but metallurgical science has not yet succeeded in adapting this combustible to the smelting of iron ores. In its natural state it would be useless for this purpose, and coke cannot be made from it. Charcoal it is true is still abundant in Italy, and it is well adapted for smelting purposes; but year by year the production of it tends to decrease, as land is deforested and brought into cultivation. Then again extensive steelworks, as contemplated in this case, would require something like 80,000 tons a year of charcoal—a quantity which it would be impossible to procure without difficulty, or without forcing up the price of the commodity to an impossible level. Hence these works would have to depend upon coal imported from foreign countries, and this would probably mean from England, as the country best able to supply good coal at a low price.

Notwithstanding this apparent disadvantage it is contended that the steelworks would answer well. It is pointed out that the steel manufacturers of England depend principally upon iron ores imported from Spain, &c., and without these their enormous production would be at a great disadvantage, and prices would soon attain a very different level to what they now occupy. In the present day, when the consumption of coal in ironmaking has been by the modern processes reduced to little over 1½ ton per ton of pig-iron when rich ores are smelted—while, on the other hand, it may be taken that 2 tons of Spanish ores are required to make 1 ton of pig-iron—the advantage for Italy possessing rich ores on the seacoast may well stand as a set-off against the disadvantages of having to import the coal required to smelt them. With iron ores containing 53 per cent. of metal, which could be delivered at the blast-furnace at a cost not exceeding 7s. per ton, and manganiferous ores on the seacoast not 30 miles distant from Elba, there seems good reason to hold that steel could be made in Italy at a cost little exceeding the average price of the manufactured article imported from foreign countries. With the extension that Italy is giving to her navy, and having adopted the system of building her ships of war at home, it is looked upon as a natural sequence that she ought to be in a position to produce at home the materials required for their construction, instead of as at present being compelled to import everything from abroad. For an indefinite number of years Italy will require at least 60,000 tons of rails a year, and probably more for new lines and renewals of existing ones. If all this material were produced in the country, besides giving work to many thousand men and developing the resources of the country, it is evident the money it represents would remain at home, with the exception only of the cost of imported coal. This may be approximately estimated at one-fifth of the whole amount, the other four-fifths representing the ores, fluxes, labour, and profit. Various localities have been proposed as suitable for the erection of these works. Elba itself is generally left out of the calculation,

owing to its exposure to the attacks of an enemy at sea. Piombino, on the coast opposite Elba, Leghorn, Spezia, Genoa, Savona, have each in their turn been named, but it is generally allowed that Leghorn and Spezia offer the greatest advantages. Piombino is close to the mines, but has no real harbour. Its water supply is also scanty, and malarious fevers are prevalent during the summer months, so that work has usually to be suspended. In addition to these disqualifications its sea front is considerably exposed. With regard to Leghorn it has a naval shipbuilding yard already in activity, and offers numerous facilities. To the objection that it does not offer sufficient available area for an establishment on the scale proposed, a writer in the *Rassegna* has pointed out that ample space might be provided near the railway station. The official report already referred to appears to give the preference to the Gulf of Spezia, at San Bartolomeo, on the western shore of the bay, where a shipbuilding yard was constructed some time back, and subsequently abandoned. A line of rails connects this frontage with the arsenal; the sea is always calm, and being within the breakwater the place is protected from attack. The gross annual output of the Elba iron mines was 50,801 tons in 1871, and from three to four times that quantity in succeeding years, until in 1879 it was 173,177 tons, increasing to 274,322 tons in the following year, and to 403,215 tons in 1881.

The production of the various mines in the several provinces forming the district of the Consulate of Leghorn was:—In Leghorn five iron mines yielded 403,215 tons, worth 4,395,043 lire, and employing 1760 hands. In Pisa six mines (two iron, tin, two copper, lignite salt), produced mineral worth 852,952 lire, and employed 583 hands. A lead mine in Lucca produced 625 tons of ore worth 62,500 lire, and employed 150 men. In Grosseto and Pisa 12 boracic acid mines yielded 2659 tons of mineral, worth 2,127,280 lire, and employed 594 hands; and in Grosseto 11 mines of various kinds produced mineral worth 1,800,099 lire, and employed 1084 hands. The next statement shows that 46 mines (not all in the Leghorn district and including six iron, one manganiferous ore, one manganese, one tin, one argentiferous lead, five copper, three antimony, three quick-silver, one iron pyrites, 10 lignite, one salt, and 12 boracic acid, produced mineral to the value of 9,880,000 lire, and employed 5022 hands. The manganiferous ore is derived from the mines of Monte Argentario, near Orbetello, where workings were commenced in 1874 by Messrs. Rae Brothers, of Leghorn. The yield from 1875 to 1879 was 63,000 tons, and was exported in British vessels to the United Kingdom, where it is used for making steel. In consequence of the crisis in the iron trade work was then partially suspended, but in the campaign of 1880 it was resumed with considerable activity, the yield being 24,471 tons, increased in 1881 to over 30,000 tons. Owing to present depression shipments have almost ceased. The ore is loaded from the pier erected at S. Liberata by Messrs. Rae Brothers close to the mine.

For copper in 1880 the Fenice Massetana Mine, in the province of Grosseto, was the most productive, the output being 4452 tons, representing a value of 422,992 lire, and surpassing the once famous copper mine of Monte Catini, in the Val di Cecina, which some years ago is said to have yielded a clear annual income of 40,000 £ sterling. The present produce of this mine is about 200 tons a month, and is shipped to Genoa, where it is smelted by a recently created company, using furnaces in which fusion is said to be obtained by an electric current. At Le Cetine, in the district of Volterra, under the management of Mr. J. Thomson Henderson, of Leghorn, new levels have been run with satisfactory results. The works are furnished with steam-power and washing-floors on approved principles, but the long-continued drought of the past autumn and winter have caused considerable inconvenience. The annual yield under favourable circumstances is stated to be 1000 tons dressed and 500 tons spalled ore; the former giving 10 per cent., the latter 25 per cent. of copper. Shipments are made principally to Liverpool. The number of hands employed is 180.

The most important lignite deposits in this district are—Monte-rufoli (Podernovo), in the valley of the Sterza, a small affluent of the Cecina, in the Volterra district. These workings display two beds of lignite 1 metre in thickness, and of a lacustrine formation. The calorific power is said to be 5-100, and mixed with other fuel this lignite is used in locomotives. Since 1876 there has been little activity displayed here. The estimated amount of the mineral in this basin in 1880 was 400,000 tons, and it is expected that the workings will be further developed. A branch railway of 7 kilos. in length connects them with the Cecina Saline line. At Monte Massi and Tatti (Grosseto) there are four beds of lignite, varying in thickness from 6 metres to 80 centimetres, with a calorific power stated to be 5-960. The annual output is 11,000 tons, and according to the calculation of M. Haupt in 1873, the amount of mineral then existing in the basin was 15,000,000 tons. The produce of these mines is sold to the Roman Railway Company at 15-50 lire per ton. Monte Bamboli (Grosseto), from which the best lignite was formerly obtained, after being extensively worked since 1839, is now nearly exhausted. Several beds have been discovered about Garfagnana (in the Lucchese district), and along the valley of the Serchio, above the baths of Lucca. Their extent has not yet, however, been accurately determined. With reference to the important question of fuel, the report already referred to proceeds to state that the resources of the whole of Italy may be put down at not more than 60,000,000 tons of lignite and peat, which at the present annual output of 200,000 to 250,000 tons will suffice for a couple of centuries. On the other hand, the annual turn out of collieries in the United Kingdom is given as 130,000,000 tons, equal to 300,000,000 tons of Italian lignite, or five times the whole disposable fuel resources of the country. Of the 50,000 tons charcoal annually shipped in ports on the Tuscan coast and Sardinia, a large portion, say, 40,000 tons, are consumed in the smelting furnaces of the Maremma and in Lombardy.

The marble in blocks exported from Leghorn, according to official returns, has been 7700 tons, worth 428,448 lire, in 1881; and 9720 tons, worth 534,492 lire, in 1882, showing an increase of about 2000 tons in 1882; but, as already remarked, these figures afford no idea of the total shipments at this port. From the returns published by the Carrara Chamber of Commerce it appears that marble shipped at the beach of Avenza (Carrara) in 1882 amounted to 86,228 tons, thus made up—Marble in blocks, 64,294 tons; marble of all sorts, 21,934 tons = 86,228 tons. The gross export from Massa and Carrara was 157,969 tons. No doubt a far larger proportion of this is exported through Leghorn than appears above, for, owing to the fact of its being transferred at once from small craft to the steamers, it does not figure in the returns.

ANGLO-FRENCH METAL WORKS.—Referring to the metallurgical industries in the Nantes district, Consul Segrave gives some details concerning Couëron, which will be interesting. The ironworks at Basse Indre turned out during 1883 some 8500 tons of bar and sheet iron, being a considerable increase on the output of the previous year, and in the main due to the fresh impulse given to shipbuilding in the district. They give employment to 450 hands. There has been a fair increase in the demand for agricultural machinery of local manufacture. The excellence of the workmanship causes them to be much appreciated over a large radius. English competition is, however, a serious difficulty in the way of expansion. Local hardware has been in much request, as well for the French colonies as for the neighbouring districts. There have been, moreover, large Government orders. The Anglo-French Company's leadworks at Couëron have turned out during the year—lead 10,000 tons, silver 18, white lead 471, red lead 217, shot 294, piping 1879, sheet 760, copper sheet 970, copper wire 21, copper bars 47, brass sheet 1017, brass wire 291, brass bars 81, zinc 375 tons. They employ some 500 hands.

HOLLOWAY'S PILLS—WEARY OF LIFE.—Derangement of the liver is one of the most efficient causes of dangerous diseases, and the most prolific source of those melancholy forebodings which are worse than death itself. A few doses of these noted pills act magically in dispelling low spirits, and repelling the covert attacks made on the nerves by excessive heat, impure atmosphere, over-indulgence, or exhausting excitement. The most shattered constitution may derive benefit from Holloway's pills, which will regulate disordered action, brace the nerves, increase the energy of the intellectual faculties, and revive the failing memory. By attentively studying the instructions for taking these pills and explicitly putting them in practice, the most desponding will soon feel confident of a perfect recovery.

WORKMEN AND THEIR EMPLOYERS—No. I.

The absurdity of pretending that the interests of workmen and of their employers are opposed to each other receives almost daily additional confirmation, yet working men still suffer themselves to be duped and misled by agitators who enjoy idleness and an income far above their worth through diffusing false and dangerous notions amongst their fellow men to the permanent injury of the labourer, and of the industry which supplies the labour, without which the workman must starve. The *Mining Journal* has always advocated the fair and even liberal payment of the working man; but has always pointed out that the employer must have a fair amount of work done in return for the payment, and that in times of depression the workmen can by over exaction in their demand for higher wages, and sometimes even for the maintenance of the existing scale of wages, very easily extinguish altogether the industry which gives them bread. Matters seem to have been actually pushed to this extent in France, for Consul Segrave, reporting upon the trade and commerce of Nantes, says that the residents have not for years known such utter commercial stagnation as has recently existed, and which unfortunately still exists.

The early part of the year, he adds, was marked by some commercial disasters of comparatively trifling importance, but which culminated finally in the failure of the great sugar refinery of the West of France, and which threw over 1500 persons out of employment. This company, formed by the amalgamation of several refineries, had succeeded in getting into its hands nearly the whole of that business at Nantes, and by its failure it is feared that this industry, which for years had been one of the chief sources of the wealth of the town, is lost to it in the future. Of course the stoppage of a large concern like this has seriously affected many other trades which depended directly or indirectly upon it. The carrying trade has been largely influenced, and the steam navigation companies are no doubt with others considerable sufferers. There are also said to have been heavy losses in the grain trade, chiefly owing to over speculation. In the meantime business is more or less at a standstill, and the attitude of the working classes does not inspire confidence in its prompt resumption.

Every day the difficulty of getting a fair day's work for a fair day's wage increases. Strikes are of constant occurrence, whilst interested demagogues do all they can to widen the breach between employer and employed, and unfortunately with too great success. It is not in the nature of things that a man will go on risking his capital in an undertaking when he is constantly being held up to his employees, in newspapers and political harangues, as a selfish tyrant and robber, who fattens on the sweat and blood of the poor, and such like amenities. As an illustration of the state of feeling existing amongst the working classes, a local newspaper recently published an account of what was stated to have taken place at a public-house where numbers of the working classes are wont to assemble. One man, amidst great applause, declared that receiving 3 fr. 50 c. a day he on principle never did more than 50 c. worth of work, whilst another, who was still more applauded, declared that receiving from the "patron" a certain number of rivets and screws to fix, he had conscientiously thrown a large proportion of them into the river. And yet these men, if left alone, are good workmen—skilful, intelligent, and frugal—but universal suffrage has made them political instruments, to be manipulated by ambitious self-seeking demagogues to their own ruin and that of their families.

That employers as a class do not consider their workmen are insufficiently remunerated is pretty evident from the willingness which has frequently been expressed to admit the men on the profit-sharing system; but experience has proved that whether admitted to partnership in the business at which they are working, or whether they attempt to carry on the business on the mutual system—so as to avoid the necessity for masters altogether—working men are a dead failure. The profit-sharing system has in all cases been abandoned at the request of the men, and working as their own masters—although they had a favourably situated colliery and ample capital—the colliers lost as much in a couple of years as a professional employer would have lost in 20 years with trade in the same condition. It is not long since, commenting upon Mr. Sedley Taylor's address on Profit Sharing, delivered at the Co-operative Congress at Derby, the Times remarked that it is assumed, in the first place, that the labour remunerated by a share in the profits will be so much more productive in itself, so much more thrifty in the use of material and plant, and so conducive to economy in the cost of superintendence, that the extra margin of profit thus secured will create a fund out of which the workmen's share of profits can be distributed. This is surely a very large and hazardous assumption, and we should not be surprised to find that the Trades Unions had something pertinent to say about it. If this is all the result that co-operation is expected to produce directly, it is easy to see that the workmen would only be getting an increase of profit due to the increased productiveness of their labour. The sum distributed among them at the end of the working year is in reality nothing more than deferred wages, such as they would be entitled to claim at any intermediate period, and could perhaps exert if they thought it worth their while to resort to the expedient of a strike. What is more, another assumption, concerning which Mr. Sedley Taylor says nothing directly, though it is manifestly involved in his reasoning, is that in all cases there will be profits to divide. This is generally the rock on which schemes of co-operative production split. A share of profits, if earned, seems also to involve a participation of losses if incurred. Otherwise the workman would be playing at a game of "Heads I win, tails you lose"—a game no doubt very profitable to the player, though not one which the employer would find it expedient to play more than once. But suppose the profits actually earned, what guarantee has the workman that the amount is equitably apportioned? Is he to take what the employer chooses to give him, or to be entitled to satisfy himself by an examination of the employer's books that he has obtained the share he bargained for? In the first case it is difficult to believe that the system would put an end to disputes, while the second is a condition to which we imagine very few employers would be found willing to submit.

Now, with regard to some of the questions raised; they are readily answered in favour of the profit-sharing system, for there would be no difficulty in apportioning the profits, and the workmen could be readily satisfied as to the exact profit realised by the adoption of the joint auditor system, which has long worked admirably in the North Country coal district in determining the selling price of coal for the purpose of fixing the price per ton to be paid to the colliers; but the truth is that when one's competitors know one's profits, and whether they are increasing or diminishing, the business cannot be so satisfactorily and profitably carried on. This is especially the case when profits are diminishing—the workman, who would be virtually in the position of a sleeping partner, would desire to know why the profits were not maintained, and so what should be trade secrets become public property. The same difficulty is met with in the case of joint-stock partnerships. The private trader realises a fortune because he permits no one to know whether any given speculation—and here the term speculation must be held to include every transaction which the trader is connected with—is a success or a failure; but where there are sleeping partners or shareholders, whether they be private capitalists or workmen, unsuccessful transactions have to be explained, justified, and discussed, so that even the most uncontrolled manager does not act with the same freedom from restraint as if he were using his own capital. To this state of things may be traced the failure of one-half of the public companies which come to grief. A manager in every respect competent and thoroughly experienced in the business he is conducting is expected to enter into explanations of trade details to a board of directors who are mere greenhorns as regards that particular business, and these explanations he will not give. The knowledge how to manage the concern is the manager's stock-in-trade, and he considers that to instruct the directors is sacrificing his own means of commanding employment at as good or a better wage; he knows too full well that the maxim "knowledge is a commodity of which you can give away any quantity and remain as rich yourself" is false, delusive, and absurd.

If, then, we would benefit the employer and the workman, we must make both understand that each has his rights and his duties, and

when either party neglects his rights and duties both parties are, and about equally, though from the fact that the employer usually greater facilities for obtaining or continuing to obtain it during the struggle the workman feels the hardship much more quickly. Hence strikes seldom terminate in favour of the workman, and when they do the settlement is too often followed by the employer of the business so far as the particular district is concerned. It is because the master can no more afford to keep his works idle than the workman can afford to forego wages, since the fixed charges on the master must pay, whether his works are in operation or not, will cripple him just as the debts for necessities will cripple the workman.

THE IRON TRADES EMPLOYERS' ASSOCIATION.

The annual general meeting of the members of the above association was held on Thursday, at Halifax, and the general committee in report, which was presented and adopted, dealt with several important questions interesting to the trade generally. The marked depression in the iron trades generally, and the very sudden fall in the shipbuilding industry. This falling away of trade had in many districts been followed by reductions in the wages rates, which had become unusually high, and had reached a point which might have had much to do in bringing about a reaction that was peculiarly noticeable in those departments of the iron trades in which wages had been unduly forced up by exceptional conditions in shipbuilding and marine engineering districts. In other engineering districts there were signs also that wages were tending backward to the rates in force before the recent period of activity had set in, which seemed, except in very special cases, to have disappeared for the present. Generally speaking the committee had to report that serious difficulties had arisen between workmen and employers in districts where the association had members; but there was one question which had occupied the attention of employers in the engineering trades all over the kingdom, and the dispute which had taken place in Sunderland upon the apprentice question, after a protracted struggle in the engineering trade than had been known in any past time, had gained for employers and employed in all other industries a victory in which liberty of action on a most important point had been effectively vindicated and made secure. With regard to the important question of the rating of machinery by overseers of the poor the committee reported that this was a matter which might at an early date become a question for legislative action. In some important districts much anxiety was felt in regard to the course pursued by overseers of the poor in bringing tools, lathes, and light machinery generally within the schedules of property to be assessed for poor rates, and in some places the subject was assuming a serious aspect. The theory upon which the assessment committees and their officers were proceeding in many places would throw an additional and very weighty burden upon industrial enterprise if not successfully resisted. The committee had, therefore, during the last few months given very close attention to the question in the interests of the members of the association and of the engineering trade generally. In the Leeds and Manchester districts the leading firms had formed themselves into voluntary combinations for mutual assistance in resisting these attempts, and they had resolved to carry any such case to the final court of appeal before the House of Lords should they find it necessary to do so. In the meantime, as nearly all our great national industries were thus threatened by an additional and very heavy burden which might be thrown upon the already overburdened cost of production, conferences had been held, and occupations of workshops and factories, railway companies, and other great industrial corporations were likely to make common cause by asking the legislature to take such steps as would settle in clear terms, and make uniform in its action, this vexed question of rating machinery, and would thus relieve employers from the harassing uncertainty to which they were exposed. The report next referred to the formation of local district branches on the Tyne and Wear in accordance with the request of the employers in the engineering trades of Newcastle-on-Tyne and of Sunderland. The successful working of the scheme of mutual insurance against claims made under the Employers' Liability Act was also dealt with, and as an illustration of how comparatively small are the risks in the engineering branches of trade it is pointed out in the report that, notwithstanding the very low rates of insurance upon which the scheme had been originally based, it had been found possible to make a considerable reduction in the scale of charges, and they had still a revenue more than equal to the claims made upon the funds, and after discharging all demands for compensation and expenses of management, a balance upon the year's transactions remained in the hands of the association.

MINERAL WEALTH OF MONTANA—GOLD IN FOSSILIFEROUS LIMESTONE IN THE JUDITH MOUNTAINS.

The district where the above ore has been found is called the Warm Spring Mining District or Maginnis country. The Judith Mountains form one of the numerous small groups or ranges rising abruptly from the rolling high table-lands between the Yellowstone and Missouri rivers, and are about 100 miles north of Custer station, Northern Pacific Railroad, on the Yellowstone. The highest peaks are about 2000 ft. above the plains, or 6500 ft. above the sea. The gulches are narrow and the streams small, fed by springs or melting snow. About 4 miles from the mines are warm springs with a fine body of water. The mountains are steep slopes or abrupt bluffs of limestone or trap. They are partly well timbered, but much has been destroyed by fires. The limestone is full of caves, forming good retreats for the bears, which are still quite plenty.

The formation appears, says Mr. W. M. COURTIS, M.E., of Detroit, in an interesting article in the New York Engineering and Mining Journal, to be the lower silurian closely resembling the lower beds of the upper copper rocks of the north shore of Lake Superior, while the plains with the coal beds are much younger. The coal varies from a poor anthracite through fine soft coals to poor lignites. As yet, no coking coal has been found near, but undoubtedly it will be when the field is more carefully looked over. The rocks are limestone, with encrinurite stems and other fossils, dolomite banded with chert, black and green slates, sandstones, columnar trap, porphyritic trachyte, and probably diorite. A marked characteristic of the rocks of this district is the perfect crystallisation of the feldspar and quartz. The separate crystals weather out, and may be found perfect, both single and twinned, simple and modified. One rock seems an aggregate of perfect feldspar crystals, like grains of rice, with but little cement. Through this rock, like plums in a pudding, are larger double pyramid crystals of quartz, perfect but not clear. In another rock the feldspar crystals are several inches long, but quite narrow, in a green matrix, making a beautiful variegated stone. Pure white marble is also found, and veins of saltpetre, but whether of value has not yet been determined. The main porphyry belt, which seems to have been the mineraliser, has the appearance of rhyolite, but is much altered by kaolinisation, especially near the ore deposits. The best of these deposits are on the contacts next the limestone. The dolomite, as in Lake Superior, seems to have had an effect on the ore, the rich silver minerals being replaced by low-grade lead and iron.

The gulches carry gold in paying quantities, and are washed while water lasts, but owing to the small size of the streams much of the ground is unavailable. The gold is coarse; the largest nugget was 833. Late discoveries have opened up some very rich ground, and promise of more fine leads. The only mine that is developing, except in prospecting, is the property of the Maginnis Mining Company, which has just been incorporated by Messrs. Hauser and Holter, of Helena, with a capital of \$500,000. They prospect it last year with a small two-stamp mill, losing two-thirds of the gold, and yet doing very well. Their tailings were about \$60, so the ore probably averaged \$100, though there is much that is of lower grade. This season the old mill is to be enlarged, and completed with better machinery. The ore is a soft carbonate, so called, but really has but occasional spots of lead carbonate or galena. In parts of the mine the ore body is large, 15 or 20 ft. across; this is the case at the bot-

tom of the deepest shaft, some 200 ft. from the outcrop. Specimens can be had of any value that show but little free gold, but on firing are covered with beads. The small bunches of galena are rich in silver, assays running up to nearly 200 ozs. The Kentucky Favourite and Spotted Horse, east of this property, belong to the same vein system. These are only prospects as yet, but promise to make fine mines when more opened. The ore body is of good size, and rich so far as opened. The ore of the former carries grains of sylvanite probably, as tests show tellurium and gold, with a little silver.

On the Spotted Horse the limestone crops out at the side of the vein in bluffs reaching down to the gulch. It has the appearance of having been mixed while in a semi-fluid state with patches of the gangue of the vein, which has somewhat altered the limestone and distorted the encrinurite stems, which still in some cases are quite perfect. Not only the gangue but also the simple limestone is full of cavities, evidently pseudomorphs of crystals, filled with a spongy cement gold of the appearance of iron oxide, but which under the knife welds together and polishes. These cavities have the appearance of being the same tellurium mineral as in the Kentucky, from which may also be driven off by the blow-pipe the tellurium, &c., leaving a mass of spongy gold, which bubbles out and then melts to a bead of nearly pure gold, bright yellow. The ore assays about half and half silver and gold, but the former may be in other minerals. There is an immense amount of this limestone. One piece not showing on the exterior free gold to the eye assayed some \$500. Picked samples will run anything needed. As no work has been done on the bluff, it is not known how far the gold extends into the limestone; but with hand hammers all that can be broken off shows more or less gold anywhere on the surface of the bluff that shows the action of the gangue. The fossils have been distorted so much that they might not be recognised in hand specimens; but taking the hill side and weathered faces they can be seen in every state to perfection. This gold has been found by assay, if not free, for 1000 ft. along the face of the bluff where uncovered.

There are many other fine claims not yet developed beyond the prospect stage. There are also large bodies of iron carbonates that carry gold and silver, and offer inducements to explore these contacts with every promise of success. The Montana has already proved that these efforts may be successful. Producing rich galena and carbonates are the War Eagle, St. Paul, and Black Bird. The Florence, Comet, Aline, Silver Star, and Golden Terry are valuable claims, with sulphuretted, arsenical, and antimonial ores of high grade. The Bamboo Chief is gaining a reputation for high grade ore. There are large deposits of low-grade galenas and carbonates, fluxes of fine quality, plenty of fuel, and large streams of water below the mines. The country around is very favourable for stock-raising, and is fast filling up with ranches, driving back the game, which was formerly abundant, and still offers good sport, with once in a while a little excitement in a brush with some old silver-tip bear. It is the same old story of gullible inexperience, an extravagant plan, with too little capital, multiple managers, great expectations, and poor results. Debts and attachments close up what might have been a success had the mine been carefully opened before the great expense of machinery was incurred. Parties wishing to get interests for developing prospects would do well to look over the opportunities offered in this camp. It is at present off the line of travel, and through its misfortunes has been set back, but it seems to me to be on the eve of a prosperous future on a solid basis. The miners and citizens of Maiden have started a reduction company, with the praiseworthy intention of putting their own shoulder to the wheel. What the camp needs is a company with experience and capital sufficient to wait for and aid development.

Registration of New Companies.

The following joint-stock companies have been duly registered:—

THE PARA RAILWAY COMPANY (Limited).—Capital 1,000,000*l.*, in shares of 10*l.* To acquire a concession, and to construct, equip, maintain, and work a narrow gauge railway between the cities of Belan and Braganca in Brazil. The subscribers are—P. Vigdmar, 97, Queen's-gate, 400; J. M. Henderson, Hampton Wick, 1; T. Fraser, 6, Thornhill-square, 1; F. D. Gunning, 69, South Audley-street, 1; F. H. Gilden, Lewisham, 1; J. M. Beattie, 69, Richmond-road, 1; W. L. Thomas, Highgate, 1.

THE PENDLE-STREET ROOM AND POWER COMPANY (Limited).—Capital 30,000*l.*, in shares of 50*l.* To erect at Seed Hill, Nelson, a power loom weaving shed, warehouse, and other buildings, engines, appurtenances, &c. The subscribers are—W. Astley, Nelson, 20; J. Bannister, Nelson, 20; T. Robinson, Nelson, 10; J. H. Edmonson, Nelson, 1; A. Crabtree, Nelson, 10; J. Barker, Nelson, 10; J. Holt, Nelson, 6; T. Ridehalgh, Barrowford, 6.

SAXBY AND FARMER (Limited).—Capital 200,000*l.*, in shares of 10*l.* To acquire and carry on a business of patentees and manufacturers of railway signals, locking apparatus, and safety appliances, &c. The subscribers (who take one share each) are—J. Saxby, Wivelsfield; H. Farmer, Hampstead; C. Hodgson, Glyndhurst; J. Saxby, Upper Tooting; W. Buck, Kilburn; T. Perry, 23, Kilburn Park-road; J. Saxby, Kilburn.

THE COAL SHIPPING SPECIAL FACILITIES COMPANY (Limited).—Capital 15,000*l.*, in shares of 250*l.* To make, use, or sell coal stailthes, tips, apparatus, and machinery of every fashion for shipping coal or loading vessels. The subscribers (who take one share each) are—T. Morol, Penarth; E. Hancock, Roath; W. T. Rees, Aberdare; P. A. V. Robinson, Cardiff; A. T. Luvico, Landaff; S. Taylor, Penarth; T. C. McIntyre, 101, Leadenhall-street.

THE SEASON TICKET COMPANY (Limited).—Capital 50,000*l.*, in shares of 1*l.* To make advances for the purchase of railway, tramcar, omnibus season and other tickets. The subscribers (who take one share each) are—J. J. Dunn, 1, Walbrook; G. P. Pike, Kennington; W. G. Card, 24, Olinda-road; T. W. Morley, Walthamstow; T. J. Porter, 8, Varsity-road; C. Duff, Canonbury; R. R. Stevens, Hoddeston.

G. KYNOCH AND COMPANY (Limited).—Capital 150,000*l.*, in shares of 10*l.* To carry on in the United Kingdom and elsewhere the manufacture and sale of ammunition, gunpowder, gun cotton, &c. The subscribers (who take one share each) are—E. W. Stafford, 48, Stanhope-street; E. Wray, 5, Harrington Gardens; G. Kynoch, Witton; H. P. Gordon, Hatton-court; Lord Bury, 65, Prince's-gate; C. H. Strutt, Parsloes; F. A. P. Pign, Dartford.

THE ROYAL SILVER MINES OF POTOSI, BOLIVIA (Limited).—Capital 550,000*l.*, in shares of 10*l.* and 50*l.* To acquire all or any part of the property, rights, powers, and privileges of the Compania Minera del Real Socavon of the Republic of Bolivia, South America, and to work and develop any mines, minerals, and mining rights. To render marketable, sell, and dispose of the said minerals or products, with power to grant licenses for the working of the whole or any parts of the properties acquired by the company. The subscribers (who take one share each) are—J. Gibbs, 24, Leyham Gardens, director; A. G. Kendall, 53, Old Broad-street, merchant; N. Story-Maskelyne, Salthorp, M.P.; S. Manning, 3, Great Winchester-street, C.E.; E. D. Mathew, 10, Union-court, C.E.; A. J. Hooper, 57, Moorgate-street, merchant; C. Beringer, 57, Moorgate-street, accountant. The subscribers will appoint the first directors, whose number must not be less than three or more than seven. Qualification 250*l.* in stock or shares.

THE BRITISH PURE ICE MANUFACTURING COMPANY (Limited).—Capital 50,000*l.*, in shares of 5*l.* To manufacture, purchase, sell, or otherwise deal in ice in the United Kingdom or elsewhere. The subscribers (who take 40 shares each) are—W. W. Greatorex, Tooting; J. M. Holland, Holloway; J. E. Bushman, 1, Finsbury-square; W. Jeffery, Addiscombe; A. G. Christianson, Peckham; W. W. F. Osborne, Peckham; H. Stokes, New Coventry-street; G. F. Parkinson, 104, Walmer-road.

THE SOUTH WALES SMELTING COMPANY (Limited).—Capital 40,000*l.*, in shares of 100*l.* To carry on at the Old Landore Copperworks, near Swansea, the business of smelting, manufacturing, and dealing in copper, silver, gold, lead, antimony, &c. The subscribers are—J. Kefna, Swansea, 50; J. Gordon, Landore Steelworks, 15; T. R. C. Strick, Queen Ann's Mansions, 50; G. H. Jenkinson, Swansea,

50; L. W. Monchel, Britonferry, 2; W. Habuck, Swansea, 1; W. Cox, Swansea, 2.

THE REAL PROPERTY INVESTMENT COMPANY (Limited).—Capital 100,000*l.*, in shares of 5*l.* The usual business of a land and mortgage company. The subscribers are—J. H. Watson, Liverpool, 1; J. Walker, Liverpool, 1; G. Ferrier, Liverpool, 1; G. Mahon, Liverpool, 5; D. Roberts, Tranmere, 5; J. Davies, Tranmere, 1; J. H. Saul, Liverpool, 5.

THE NEW CIVIL SERVICE CO-OPERATION (Limited).—Capital 100,000*l.*, in shares of 10*l.* To acquire and continue the business of a company bearing the same name, which was incorporated in 1874. The subscribers (who take one share each) are—H. Gardner, Wands-worth; A. Abraham, Stoke Newington; T. Morris, 218, Old-street; H. B. Roberts, 15, Union-road; J. Fowler, 126, Landells-road; F. G. Peters, 30, Basnet-road; T. Rookwood, Leyton.

THE NEW ORIENTAL BANK CORPORATION (Limited).—Capital 2,000,000*l.*, in shares of 10*l.* To acquire the goodwill, take over, and carry on the business of a bank in liquidation. The subscribers are—W. W. Cargill, Campden House-road, 100; E. Harrison, South Norwood, 50; A. J. Macdonald, Edinburgh, 50; J. S. Scrymgeour, Clapham, 10; M. J. Reid, 122, Westbourne-terrace, 50; J. Robb, 40, Threadneedle-street, 2; R. Rohde, 32, Lansdowne-road, 10.

J. T. MARSHALL AND COMPANY (Limited).—Capital 50,000*l.*, in shares of 10*l.* To acquire certain works at Sandiacre, near Nottingham, and to carry on the business of manufacturing locomotives, rolling stock, engines, plant, machinery, &c. The subscribers (who take one share each) are—H. S. Cropper, Nottingham; J. W. Lewis, Nottingham; E. Hardy, Nottingham; L. Woodward, Nottingham; J. T. Ranshall, Gainsborough; F. W. Cooper, Nottingham; C. Wheatley, Nottingham.

THE YACHTING STATION OF JUAN LES PINS ON THE RIVIERA (Limited).—Capital 200,000*l.*, in shares of 20*l.* each. To establish and maintain a yacht station, and improve land and hereditaments on the coast of the Mediterranean. The subscribers (who take one share each) are—The Marquis of Lorne, Inverary Castle; the Duke of St. Albans, Bestwood Lodge; Lord Wolverton, 12, Carlton House-terrace; Count de St. Priest, 34, Grosvenor-square; R. H. Collins, Esher; W. Gilstrap, 42, Upper Grosvenor-street; P. F. Rose, Rayner Penn.

THE CARNATIC ESTATE (Limited).—Capital 20,000*l.*, in shares of 100*l.* The usual business of a land company in all branches. The subscribers are—R. G. Allan, Liverpool, 30; T. Drysdale, Liverpool, 20; J. D. Duckworth, Liverpool, 20; J. Gibbins, Liverpool, 10; G. Holt, Liverpool, 20; B. Rathbone, Liverpool, 10; W. Imrie, Liverpool, 20; C. Langton, Liverpool, 10.

THE SHORTLANDS ESTATE COMPANY (Limited).—Capital 100,000*l.*, in shares of 5*l.* To acquire a property situated near Beckenham, Kent, and to carry on the business of a land and building company. The subscribers are—H. Eldridge, 14, Nicholas-lane, 1; F. Jacob, 1, Shortland-road, 1; J. W. Sawyer, Bromley, 1; J. H. Lowe, Bromley, 1; D. Bennett, 14, Nicholas-lane, 1; P. S. Bealby, Beckenham, 2; A. H. Battcock, 22, Great George-street, 1.

THE VAAL RIVER BRIDGE (BARKLY) COMPANY (Limited).—Capital 100,000*l.*, in shares of 5*l.* To build, construct, and maintain a bridge across the Vaal river, in the Cape Colony. The subscribers (who take one share each) are—W. Flux, 3, East India Avenue; G. B. G. Findley, 4, Queen Victoria-street; H. White, 9, Mincing-lane; A. P. Gibbons, 9, Mincing-lane; J. M. Bishop, Leytonstone; H. Frost, 10, Clement's-lane; C. Murdock, Dunstan House.

THE THORNHILL IRON AND STEEL COMPANY (Limited).—Capital 20,000*l.*, in shares of 250*l.* To purchase, sell, deal in, work, or manufacture, ores, minerals, and metals of all descriptions, and to carry on all or any colliery, coal mines, seams, beds, and quarries of coal, &c. The subscribers are—R. Briggs, Leeds, 2; P. Hogger, Gateshead-on-Tyne, 4; A. Brayshaw, Leeds, 4; H. Taylor, Huddersfield, 2; G. H. Russell, Leeds, 4; J. Maltison, Huddersfield, 2; R. A. Caine, Leeds, 1.

THE ARUNDEL FUNDING SOCIETY (Limited).—Capital 5000*l.*, in shares of 1*l.* To lend and advance moneys, to receive deposits, and to borrow money, &c. The subscribers are—A. Sanderson, Heeley, 10; J. H. Sanderson, Southport, 10; W. Hardwick, Sheffield, 10; G. Gill, Sheffield, 10; F. Swindell, Sheffield, 10; G. S. Staniland, Sheffield, 5; W. Wilson, Sheffield, 5.

MECHANICAL SUBSTITUTE FOR FLUCTUATIONS IN PRICES.

A Cleveland inventor has (says the Iron Age) hit upon the exact idea.

Commercial exchanges are apt to be occasionally dull. Trade will sometimes get into a rut, and quotations will run along on a dead level for a long time. This knocks the life out of speculative business, which depends entirely upon fluctuation for its support. If there are no transactions, or if prices show no variations of consequence, the "market" becomes unsatisfactory for commission brokers, whose customers go in for a "quick turn." The Cleveland genius has evidently studied the question from an interested standpoint, has grappled with its difficulties, and has secured the pivotal idea, which is always the mark of an inventor of the very first order of talent. His apparatus is intended for a grain exchange, but can be equally well adapted to a stock exchange or a metal exchange. It needs no telegraphic connection with distant points, and employs no correspondents in other trade centres, nor does it require the collection of statistics of production and stocks. Even arbitrators are not needed, and terms of settlement are never a matter of dispute. The "enunciator," as the apparatus is called, is run by clockwork and heavy weights. These are wound up and business begins. The front of the machine is of plain japanned iron. In it are cut two slots. One is labelled "advance" and the other "decline." Back of the machine runs a long, narrow box, filled with cards printed "pork," "wheat," "oats," "corn," &c. Under each are small figures, from 1 up. Every half minute the clock which surmounts the machine rings a bell, lifts a lever, the weight falls, and a card drops into one or the other of the slots, as luck may guide it. Bets are made, for instance, that oats will rise in price.

The machinery revolves and a card lettered "oats 1 1/2" drops into the "advance" slot. The better wins. Bets can be made every half minute, or 600 "deals" an hour. The machine is described as a beautiful piece of mechanism, and is perhaps costly. But its price could hardly be an impediment to its rapid introduction into general use for exchange purposes, considering its economical accompaniments as compared with the cumbersome and costly appointments of our regular exchanges, and we should expect the ingenious inventor to reap a very lucrative reward for his undoubtedly severe application in studying the principles of exchange practice. Unfortunately, however, our laws are somewhat discouraging for an inventor of this sort, as he is now languishing in a Cleveland jail on a charge of keeping gambling apparatus. This argues a grave defect in our civil polity. The individual who discovers and applies great principles, such as accurate enormous daily commercial movements, should be honoured, not persecuted. His imprisonment and possible punishment savor of the dark ages, and are not characteristic of this age of inventive progress and commercial freedom—and exchanges.

THE FRENCH BOUNTY SYSTEM.—A return prepared at the Ministry of Marine shows that under the law of January, 1881, a sum of 16,696,067 fr. has already been paid by way of bounties for navigation. Of this sum steamers have received 11,581,000 fr.; sailing ships (iron), 1,311,000 fr.; sailing ships (wood), 3,804,000 fr. With regard to number and origin (French or foreign construction) of the vessels to which bounties have been granted it would appear that 141 steamers (49 of French and 93 of foreign build) have benefited by this law; that 59 iron sailing ships (27 of French build and 32 foreign) and 563 wooden ships, of which 453 were built in France and 110 abroad, have also received bounties. Thus 763 vessels have been granted "Primes de navigation"—529 built in French and 234 in foreign yards, the tonnage of the first amounting to 253,814 tons and of the latter to 198,224 tons. To enter into more minute details, it may be stated that the 92 steamers of foreign construction were all built in England, as well as 33 iron sailing ships. Of the 110 wooden sailing vessels built abroad 36 were of English origin, 27 were Italian, 22 Canadian, 12 German, 3 Austrian, 3 Spanish, 8 Swedish, 2 American (U.S.), 1 Russian, 1 Norwegian, and 5 of unknown origin.

Meetings of Public Companies.

HULL AND BARNLEY RAILWAY.

A special meeting of shareholders was held at Hull, on Wednesday, July 25, 1884. Lieut.-Col. SMITH, M.P., in the chair.

Mr. J. DANIELL (the secretary) read the notice convening the meeting, which had been summoned for the purpose of submitting to the shareholders a bill now pending in Parliament, intituled "A Bill to authorise the Hull, Barnley, and West Riding Junction Railway and Dock Company to raise further money by debentures."

The CHAIRMAN said that as far as he knew, nothing was omitted in drawing up the prospectus. The reasons for the issue were all placed before the proprietors at the half-yearly meeting, and in a speech which extended over three hours he explained the matter. He had nothing to add to that but to say that the figures were then examined and re-examined, and they were substantially correct. Now, anyone would have thought that the public would have been well satisfied with the pains they had taken in issuing the stock. Certainly one would have thought that the shareholders would have found themselves dissatisfied, but what was the result? In Hull 75 shareholders out of some thousands subscribed the sum of 10,000. In London 22 shareholders out of 1107 subscribed some 12,000. In Yorkshire, which he was thankful to say did a little better, 58 shareholders subscribed 17,000; and in other places about 20,000. The total applications were 238, and the amount of stock applied for was 73,705. At the last half-yearly meeting the number of shareholders was 7690, and the total number of those who subscribed was 190; that was to say, less than 200 out of nearly 8000 shareholders thought it was worth while to put their hands into their pockets again for the purpose of securing a complete concern. Of course, the board were exceedingly disappointed, and it was absurd to suppose they could proceed to the allotment of a capital of 1,800,000, with less than 75,000 subscribed. That being the state of things, they consulted Mr. Forbes and Mr. Swarbrick, who had been added to the board, and he might say in passing that since these gentlemen joined the board they had given the most assiduous attention to its affairs, and were prepared to continue with them notwithstanding the recent failures. With reference to the last issue of capital and the limited amount subscribed, it was necessary to consider what was best to be done. Mr. Forbes and Mr. Swarbrick were of opinion, and he and his colleagues quite concurred with them, that it would be exceedingly unwise and improper to still further lower the price of the 5 per cent. stock issued at 80. The Chairman then at some length described what had been done at the meeting of London shareholders, stating that after some opposition from a gentleman named Head, who threatened to petition against the bill, it was unanimously adopted, and that meeting adopted it, it would be sent before the Special Committee at noon on Friday. Alluding to the opposition by debenture holders, he said he did not see what *locus standi* they had, for he pointed out that there was a special clause protecting them, and giving them priority both with regard to principal money and in respect to their mortgages. He recommended the bill very strongly, for by it they were taking powers to raise money on more favourable terms than by preference shares. As to the Corporation their rights were exactly the same, more and no less than those of each individual shareholder who was not listening to him. He would say, furthermore, it would be the duty of the board to protect the great body of the shareholders from any action of any section only of the shareholders. On the authority of Messrs. Forbes and Swarbrick he wished to state that with the amount of money to be raised by this bill there would be the absolute certainty of giving them a running concern. It would complete the dock, and would complete their railway to Oudworth, with all the necessary junctions and all the appliances needed for carrying on an extensive and prosperous trade. Anticipating a further question as to the debts outstanding by the directors, he had to say that the directors thought it was their first duty to get the line and dock complete. They did not wish to commit any breach of faith with the contractors, but the debts outstanding to them must take a secondary position.

A SHAREHOLDER enquired what was the amount?—The CHAIRMAN said it was a little over 400,000, which, of course, represented work done. The managing directors were of opinion that, with due care and economy, they would not only get a complete running concern with the money proposed to be raised, but would be able to pay the debt due to the contractors.

Mr. BENTLEY asked what position the Hull and Barnley Company held, who were petitioning against the bill?—The CHAIRMAN replied that the Hull and Barnley Company were holders of debenture bonds, and were in precisely the same position that other holders were, and would be treated the same. If the clauses in the bill were not sufficient to protect the debenture holders, the company were willing they should be altered. The amount held by the Hull and Barnley was 100,000.

Mr. BENTLEY asked what amount of capital would be required after the line was complete to make it an independent running concern?—The CHAIRMAN said the estimate, which was included in the bill, provided for rolling stock and equipment of every species. When the work was complete there would be 110,000 in consols released from Chancery, besides which there would be surplus land which was valued at 140,000, so that they would practically have a quarter of a million of money.

Mr. WOODHOUSE said, in reference to the observations of the Chairman that the Corporation had no rights more or less than other shareholders, that the Corporation could not dispose of their shares as could other shareholders, and were not, therefore, in the same position. The Corporation also were vendors, and their rights should be protected. The Committee had, therefore, asked to have inserted in the bill a clause to protect those rights. He repeated that the committee was appointed with the best of motives to assist and advise with the Corporation representatives, and not one of the directors who were also members of the Corporation raised any opposition to the proposal.

Dr. ROLLIT (Mayor of Hull) said he came to give a silent vote in favour of the proposal before the meeting, but the remarks that had been made respecting the Corporation led him to rise. Speaking for the Corporation and for the town, he believed that all possible support should be accorded to the Chairman and directors in favour of the bill; but he regretted the tone of the Chairman, which had seemed to reflect upon the Corporation. He was taken by surprise when the amendment was moved in the Council; but there was some little justification of the Corporation raising its voice at this most critical juncture. There had been whispers that the line was to become the property of some other company; but whether these were but kites flown to ascertain what was the truth or not, and though it might be premature and somewhat disadvantageous, it was wrong when these things were occurring that the Corporation should wish to protect the interests of the town?

The CHAIRMAN, after some further discussion, said that he had been blamed in the past for keeping things back from them, and he therefore felt it his duty to mention one thing to that meeting. Some time ago they had a further difficulty with the entrance to the lock-pit, and it necessarily entailed additional expenditure. The engineers' estimate of the extra cost was from 10,000 to 15,000. He had been informed by Mr. Bohn that morning that all danger was at an end, and that the lock-pit and all connected with it were now thoroughly sound. He was glad to say that this satisfactory state of things had been effected for 5000, less than the original estimated cost.

The resolution was then put and carried unanimously.

A SHAREHOLDER asked whether the original shareholders would have the first of the debenture stock when issued?—The CHAIRMAN said another meeting would have to be held, and the sanction of the shareholders obtained for the issue of the stock. The shareholders would have the preference.

The meeting then terminated.

MINING COMPANY OF IRELAND.

The ordinary half-yearly meeting of shareholders was held at the offices of the company, Dublin, on July 17, 1884.

Mr. ABRAHAM SHACKLETON, J.P., presiding.

The following was the report:—

The directors have to report that, notwithstanding a loss of about 13000, on the lead ore and lead stocks, caused by a continued and heavy fall in the price of lead, and an expenditure beyond receipts at Laganure of 911 17s. 4d. on the half-year ended May 3, last. The unprofitable state of Laganure Mines has been a source of difficulty and great anxiety to the board, and after mature consideration they have come to the conclusion that, as a large expenditure of capital would still be required to further explore them (and your directors cannot recommend this while lead continues at its present low price) it is best to suspend all unremunerative work there, and simply confine their operations to raising the ore now in sight. They have made arrangements to ship this course—Silverdagh Collieries, co. Tipperary: During the half-year the output was 10,750 tons, and the sales were 933 tons. In the corresponding period of last year the output was 12,000 tons, and the sales were 10,331 tons. The profit on the half-year is 1494 13s. The much increased profit of this establishment is due in part to the improved yield of large coal as compared with culm in the half-year, and also to the introduction of more concentration and economy into the working of the concern.—Duhallow Collieries, co. Cork: The expenditure here has been 585 9s. 1d. The directors are taking all necessary steps to bring the expenses at this place to a close.—Laganure Mines, co. Wicklow: This account shows a loss on the half-year of 911 17s. 4d. The workings were 197 tons, as compared with 24 tons in the preceding half-year. The delivery of ore to Ballycorus Smelting Works was 191 tons, of the value of 1095 5s. 11d.—Ballycorus Works, co. Dublin: The profit at these works amounts to 238 9s. 8d., in the face of a fall of 25s. per ton in the value of lead during the half-year. The directors contemplate a fair profit from this branch of the company's property as soon as lead ceases to fall in price. The directors have continued persistently to carry out the policy of economy and reduction of expenditure which they advocated when they were entrusted with the charge of your property, and they believe that the results attained under very adverse circumstances have proved the correctness of their views. Having received from the Great Southern and Western Railway Company for the premises at Thurles (the sale of which was mentioned in the last report) the sum of 17500, and additional capital not being required for carrying on the company's operations, the directors recommend that a dividend of 1s. 9d. per share be paid out of undivided profits, which will exactly amount to the sum above mentioned. The subject of reducing the liability on the shares of the company, the desirability of which has been urged upon the attention of the directors by several shareholders, having been duly considered by the board, they have concluded to instruct the solicitors of the company to take the necessary steps to effect same, and notice in accordance therewith will be duly published. By the much-lamented death of their colleague, the late Rev. W. Wallace, a vacancy occurred in the directorate, which in accordance with the company's Articles of Association, they filled up by the appointment of Mr. John A. Casey. A vacancy having thereby occurred in the office of auditor it has been filled by the appointment of Mr. Alfred H. Middleton.

The CHAIRMAN, in moving the adoption of the report and statement of accounts, said that though the net profit was small, the board might fairly congratulate the company upon the position of their affairs, and the state of their various assets. As had been made clear

in the accounts, they would have been able to show a more substantial profit if it had not been for certain adverse circumstances beyond their control—a continuous fall in the price of lead. When they met the shareholders in February last they told them that lead had fallen to an unprecedentedly low price—a price lower than it had been for 50 years. But, low as it then was, it had sunk still lower, and a figure was touched smaller than within the commercial history of the country. Of course, that had told upon their stocks, but it was a thing that they could not control. As regarded the Laganure Mines, the report stated simply and precisely their position, and what the directors proposed doing. By carrying out the limited works that were intended, they anticipated that there would not be any loss at Laganure during the next half-year. While the price of lead continued so low they could not recommend the expenditure of capital on explorations in these mines. But, of course, if there was a marked advance in the value of lead the directors would consider what should be done, but no expenditure would be made without the knowledge and approbation of the shareholders. In reference to Silverdagh Collieries, the directors were glad to be able to lay before the company such a satisfactory report concerning that part of their property. As would be seen, there had been a substantial profit made there notwithstanding the low price of fuel, and if, in those revolutions which took place in commerce and trade, there should be a higher price for coal, the property there would be proportionately benefited. Even at present that concern was quite capable of being worked at a profit. Turning to the Duhallow Collieries, which had been a source of loss, they had removed some of the machinery, the item in reference to which would come up in the next half-year, and that would represent the last expense in connection with the property. The accounts of the Ballycorus Works showed a comparatively small profit, much less than in other years, and, as the shareholders would readily understand, on account of the low price of lead they had kept up the stocks there—as any prudent person in business would do—and they would have got a very good profit but for the adverse circumstances already referred to. Still, there was a balance on the right side at that account of 238. Notwithstanding the low price the demand was very good. The directors had succeeded in lowering expenses considerably in every department, and the result was that they were able to report a profit, after the payment of expenses. If the same system had been pursued as in past years, instead of a small profit there would have been a sharp loss on the half-year's working. Meanwhile, the property had not been allowed to run down; on the contrary, it was in a better condition in many respects than when the present directorate took charge of it. With regard to the question of reducing the amount of liability on the shares of the company, it was found that under their constitution there was no power to reduce the capital, unless by an extraordinary meeting of the company. That course they proposed to adopt, in order that they might make such alterations in their rules as would enable them to reduce their capital. They did not anticipate that any difficulty would arise in carrying out the desired change. They did not want extra capital, and as for a call they had not the slightest idea of making one. There was no danger of such a thing as that.

Prof. HENNESSY, in seconding the motion, said that the policy now pursued by the directors was one that, had it been followed many years ago, would have saved the company a great deal of loss. Seven years ago he and other shareholders recommended the adoption of such a policy, but the then directors did not take the suggestion into consideration.

The report was adopted, and, on the motion of the CHAIRMAN, seconded by Mr. CASEY, a dividend at the rate of 1s. 9d. per share, payable out of the undivided profits of the company, was declared.

The meeting was then made an extraordinary one. The notice convening it was to the effect that at it the subjoined resolution would be proposed, and that should it be passed by the required majority it should be submitted for confirmation, as a special resolution, to a second extraordinary meeting to be subsequently convened. The following was the resolution:—"That the Articles of Association of the Mining Company of Ireland (Limited) be altered by the insertion therein, immediately after Article 3, of the following Article:—'The company may from time to time, by special resolution, reduce its capital.'"

The CHAIRMAN proposed the adoption of the resolution, and pointed out that the extent of the reduction would be a matter for after consideration. The alteration did not compel them to make any change, it only gave them the power to do so. Mr. CASEY seconded the motion, which was adopted.

Votes of thanks to the Chairman and the board for their attention to the interests of the company terminated the proceedings.

DEVON FRIENDSHIP MINING COMPANY.

An extraordinary general meeting of shareholders was held at the office of the company, Austin Friars, yesterday, July 18, 1884. Mr. J. H. MURCHISON in the chair, to confirm the following resolution: "That 20,523 shares in the capital of the company remaining unallotted be issued at a discount of 10s. per share, and that the holders thereof be entitled to one-half of the net profits available for dividend, such moiety to be divided amongst them *pro rata*."

Mr. J. H. A. SMITH (the secretary) read the notice calling the meeting.

The CHAIRMAN formally moved the confirmation of the resolution.

Mr. LAMB seconded the motion.

The CHAIRMAN said he was happy to state that he had a long list of shareholders who had agreed to take unallotted shares, to the extent of about 7700, on condition that the whole number required were taken up. Some of the principal shareholders had not sent in, and he believed that if the shareholders themselves would take up further shares, to the extent of 12,000 shares altogether, there were other persons who would take the rest. Since the last meeting he had been at the mine, and really the enterprise was as far from being a speculation as it could be. He met there Capt. Harris, the captain of the Mellanear Mine, who knew it well from having worked in the old mine, and fully confirmed all that Capt. Davis had stated about the quantity of arsenical mudstone broken in the levels, so that the only expense was to raise it. At the time Captain Harris was working in the old mine the arsenical mudstone was thrown away in the stulls, as it was then considered to be worthless; but now it was not only of considerable value, but was rising in price. Four years ago it was only 4s. 10s. per ton for crude arsenic, but now it was 6s. per ton, and refined arsenic, which two years ago was 9s. or 10s. per ton was now 12s. per ton, and was rising in value. It is proposed to put up a refinery, which would increase the profits considerably. The present contract was to sell the crude arsenic at 6s. per ton, but this contract only continued till the end of the year, when no doubt a considerably better price would be obtained. The expense of unwatering the old mine and putting up machinery to make large returns would be comparatively small, and it would be a certain thing if they could get the calcing work up. With another calcing they could double the returns from the present resources. It must also be borne in mind that in addition to the arsenic, the mine had been very rich and profitable for copper, and there was no doubt that they would meet with rich bunches of that metal, and probably soon return at least 100 tons of copper ore per month. He might also mention that for every 50 tons of crude arsenic which they got they would get 1 ton of tin, which was worth 40s. to 50s. per ton, so there would be a few hundred pounds coming in every month, without making any discovery of copper. As a matter of fact, the resources of the mine were comparatively unexplored, it was only about 6000 ft. for the machinery, &c., to under the mine. The property had the enormous advantage of having splendid water-power, which was available both winter and summer. If they could get the money now asked for, there was no doubt that before 12 months were over the shares would be worth a great deal of money.

A short discussion ensued, in the course of which two or three shareholders expressed the earnest hope that their fellow-shareholders could forward and raise the amount asked for to develop what they believed to be a most valuable property.

The resolution was then put to the meeting, and carried unanimously, and the meeting broke up.

CHONTALES COMPANY.

The half-yearly meeting of shareholders was held at the offices of the company, Gresham House, yesterday.

Earl NELSON presiding.

Mr. J. JAMESON TREHAN (the secretary) read the notice calling the meeting.

The CHAIRMAN commenced by reading the last letter received from the mine. The outcome of the letter was rather disappointing. In the first place, in following the rich nail down the access to the Consuelito had been destroyed, and the commencement to the adit would be delayed, which was to get past the ground, through the rock, and to join on with the level for going over the hole which had been made. The natives would not go there, and they would not be justified in allowing them to go down. If it gave way when they were working in the Consuelito they would not be able to get out. This would delay their getting on with the work until they had made an adit parallel with the old adit to get over to the sound ground. The actual distance was 100 ft., and the board had suggested the importance of trying to throw a bridge over, or meet it in other ways. In some way or other it must be done, and as they read the letter it certainly would hinder the adit from the Consuelito opening out and exploring the Consuelito Mine. As to the dip of the adit, the following it down had been given up because of the great expense and apparent poverty of the nail. Before the board knew that it was to be stopped, they ordered a pump to go down. They had hoped that this would enable the dip of the level to be better explored than by the primitive method that had been followed. In the San Antonio Mine they were going on working, but not quite so quickly as they could wish, and they had urged that this should be gone on with. Mr. White had been out there over seven years, and three months ago he wrote stating that he had been very ill, and he proposed to come home for a short time, putting his nephew and Capt. Hoskins to manage the mine. They had got a certain amount out of the rich nail, but not so much as they had anticipated, because the cost of getting down took away from the returns. There was not the slightest doubt that there would not be those continuous returns which they had hoped for from it, and there would be a delay in getting in to test the Consuelito Mine. He would next give the present financial position of the company. They had 1500 7s. on current account, and 4800s. on deposit, making a total of 4900 7s. There were acceptances due in August 4200, in September 4000, and letters of credit out, 12000, making a total of 23000. That left the available balance, besides anything they would get back from the mine, at 26000, to the good. On looking back to this time last year he saw that the balance then was 30000; therefore, though they had not increased it they had not gone back very much. From February, 1883, they had got 90920 of gold, realising a net profit of 22511. For several months they had got nothing at all. For the last 12 months, from July to July, the gold received amounted to 30331 19s. 2d., leaving over 60000 for the previous period.

A SHAREHOLDER enquired what the expenses were?—The SECRETARY replied that they had amounted to 71704, from February, 1883, to May, 1884. The return was nearly 5000 a month.

Mr. PALMER considered that a change in the management would be to the advantage of the company.

A SHAREHOLDER asked if Mr. White had an interest in any other mine? The CHAIRMAN said the board had never dreamt of any such thing. Mr. White would not be named in the same category with the other men who had been there.

After some discussion, as there was no resolution before the meeting, the proceedings closed with the usual vote of thanks.

NEDENÆS COPPER COMPANY.

An extraordinary general meeting of shareholders was held at the office of the company, Austin Friars, on Monday (Mr. H. W. LAMB in the chair), for the purpose of confirming certain resolutions passed at an extraordinary general meeting held on July 3.

Mr. SMITH (the secretary) read the notice calling the meeting.

The CHAIRMAN moved the confirmation of the first resolution as follows:—"That Mr. W. Stevens and Major Robert Heane be and are hereby elected directors of the company, in the place of Mr. John Berghthell and Mr. Joseph Sala, resigned."—Mr. S. YORK seconded the motion, which was carried unanimously.

Mr. BAKEWELL moved the confirmation of the second resolution. "That clause 87 of the Articles of Association be altered and amended by striking out the words 'after the year 1886,' which Article will then stand as follows: 'The company may by a special resolution, of which at least 10 days' previous notice shall be given, remove any director before the expiration of his period of office, and appoint another qualified person in his stead. The person so appointed shall hold office during such time only as the director in whose place he is appointed would have held the same if he had not been removed.' The said it would be unnecessary to make any remarks, as the object for which the resolution was passed was known to all the shareholders."—Mr. MOORE seconded the motion, which was put and carried unanimously.

The CHAIRMAN said there was no other business, but if any gentleman had any remarks to make he should be happy to hear them.

Mr. S. YORK said that he hoped all difficulties would now be removed, and had to propose a vote of thanks to Mr. Lamb, which he did with considerable pleasure, for taking the chair, and also to Mr. Murchison for his indefatigable exertions in connection with this company. There was no doubt whatever that in Nedenes the shareholders possessed a most valuable property; indeed, he did not think that there was any property in Norway which would show better results than Nedenes when worked with vigour under the management of Mr. Daw, jun.

Mr. J. H. MURCHISON: You have been there.—Mr. S. YORK: I have visited the property several times, and I can speak with great confidence on the point, and you have a manager in Captain Daw, who has not his equal in Norway as a practical miner. He is a man of thorough knowledge of the subject, and you place the most implicit confidence in anything which he reports to the office.

Mr. SYDNEY SHARP seconded the vote of thanks, and asked how it was that Mr. Macmillan, one of the directors, was not present to-day?—Mr. MURCHISON said that he could not say why Mr. Macmillan was not present.

The resolution was carried.

The CHAIRMAN acknowledged the vote, and said that no doubt the shareholders would like to hear a few words from Mr. Murchison.

Mr. J. H. MURCHISON: I really cannot add much, if anything, to the information contained in the report which I sent to the shareholders on my return from the mines a few months since. I would remind you, however, that there are two very large freshhold properties, and not one only, and each is of two to three miles long, and about half a mile wide, and on one there is the forest, they say, in the South of Norway. We have not done anything with this property. The other is the copper mine property, and there the productiveness of the mine has been proved for a considerable distance. For instance, at the Skyttur Mine, the shaft is down 30 fms., and the lode has doubled in value; that is, increased from 4 tons to 9 tons of copper ore per fathom in sinking from the 30 to the 40. About 1½ mile further we have the Bolstad Mine, which is down 60 fms., and also very productive for copper, and between these two mines we have a long ago we sunk a shaft 12 fms. on the lode, and it was valued at 4 tons of copper ore per fathom. There was a north lode discovered, and this was valued at 4 tons per fathom. At 50 fms. deep at Skyttur a cross-cut was driven, and it is within a few feet of cutting this north lode, and when they resume this work they may meet with this lode at any time. That is a different lode to what has been working, and is a strong prospect of its adding greatly to the value of the property. That lode was discovered under a house, and some pits were sunk upon it, and it was valued at surface, as I have said, at 4 tons of copper ore per fathom. At 50 fms. deep it will likely be richer.

Mr. MURCHISON, in reply to a question, said that about 11,000 shares had been taken, irrespective of the vendor's shares, and there were 7000 more to take, and had it not been for circumstances which would likely soon come before the shareholders he knew that more shares would have been taken ere this. The shares were 2s. each. One of the largest shareholders had applied several times with regard to placing shares among his friends, but he had been obliged to wait until matters were more settled.

Mr. S. YORK said he would repeat that he believed they had an exceedingly valuable property, which could very soon be brought into a profitable state. There was plenty of ore in the mines, and he believed calcing furnaces were being erected for reducing the ore to regulus, which would afford a considerable saving in the way of freight, and other advantages.

Mr. MURCHISON said the directors had sent out Mr. Napier, who was a years manager to Messrs. Pontifex and Wood, and Mr. Napier stated there would be no difficulty in raising the quality to 25 or 25 per cent. He repeated that it would be necessary very soon to bring matters before the whole body of shareholders, a step which he individually was most anxious to adopt.

The meeting then broke up.

AUSTRALIAN MINING COMPANY.

The report of the directors prepared for presentation at the meeting on Monday submits usual accounts for the year ended June 30, 1884. As stated in last year's report, the arrears of rent amounted to £4567 3s. 1d.; deduct for allowances made in clearing scrub, £1217 13s. 4d., leaving 3349 9s. 9d. The year's rents to March 31, 1884, were 27100 13s. 4d. = 30444 13s. The amounts received by the colonial agents for June 1 being 2903 12s. 6d. The arrears at that date were 2417 0s. 5d. Reedy Creek, Special Survey, 2000 acres, Tungkillo Hundred.—The year's harvest in South Australia has been a bountiful one. The tenants have gathered in fair crops, prices, however, are unfortunately very low. Palmer Township is, as the shareholders are aware, part of Reedy Creek Special Survey; it is well situated on the high road from Adelaide to the River Murray, and contains about 55 acres. A few lots only have been sold, and few more have been let during the past year at nominal rents until required for building purposes; the rent is trifling, but the land will be enclosed, cultivated, and improve the appearance of the township.

The olive plantation was formed some five years ago, and unfavourable weather was encountered in the first year or two and delayed the development of the plantation. The trees are now growing fairly well, and are an ornament to the neighbourhood. It is still too early to form any opinion as to whether the cultivation will be profitable.

Port Augusta, 54 acres.—This, as the shareholders were informed by a recent circular letter, was sold for 85000. The completion of the sale was delayed until April 23 last because the buyer desired that the title should be registered under the South Australian Real Property Act.

Charlton, 634 acres.—A mineral lease was applied for some time ago, but nothing further has been done. The surface is let until July 10, 1885, at 6000 a year.

Return of Capital.—The directors received on June 19 remittance for the balance of the money for lot 8, Port Augusta, and in fulfillment of their promise to the shareholders, declared a distribution of 10s. per share, payable on June 25. The circular notifying this, the fifth return of capital, explained that 1s. per share of this amount arose in respect of small land sales of township lots, and the roads through the special survey, also for money received for old material. These sales were of too small an amount to be divided from time to time as a return of capital, but they ought to be so treated, and the present was thought a favourable opportunity to place the accounts on a proper footing.

The cash account shows that the balance in hand in London, June 14, was 18975 10s. 11d. Remittance in respect of Port Augusta, lot 8, and on account of rents due March, 90000, = 10,897 10s. 11d. A further remittance has since been received of 3500, making 11,247 10s. 11d. The fifth return of capital, 10s. per share, on 18,315 shares, absorbed 183,150 10s., leaving 20900 0s. 11d. The amount of unclaimed dividends is 6075 8s. The directors propose on Aug. 1 to pay a dividend of 1s. 6d. per share free of income tax.

Davenport, the company's agent, in recognition of his eminent services in helping forward the development of the resources of South Australia has recently had the honour of knighthood conferred upon him. The directors feel assured that the shareholders will rejoice with them at this evidence of the high esteem in which Mr. Davenport's services have been thus distinguished.

DARLINGTON STEEL AND IRON COMPANY.—The report presented at the annual meeting showed a profit for last year of 51331, which the Chairman (Mr. T. Hugh Bell), of Middleborough, said was satisfactory, considering the deplorable state of the steel-rail trade last year. The company was, however, only able to pay the dividends on their preference capital, and carry something to reserve. The directors and united association of railmakers which had been formed not only greatly benefited this company, but the steel-rail trade of the kingdom at large. The works had been kept going, and he hoped they would be for the next 12 months, during which time they intended to expend a considerable sum out of the money in hand in putting down a new engine and machinery to roll rail lengths of 130 ft., and of larger sections, thus lessening the cost of production. The directors had obtained satisfactory concessions in railway charges. They were in hopes of bringing their law suit in America to a successful issue. The report and statement of accounts were unanimously adopted.

MIDLAND INSTITUTE OF MINING ENGINEERS.—On Wednesday the annual meeting of the above Institute was held at the rooms in Barnsley, when the report of the Council and the annual statement of accounts were presented. Mr. T. W. Jeffcock, of Sheffield, one of our leading mining engineers and a magistrate, was appointed President, and Mr. Joseph Mitchell treasurer and secretary. After the ordinary business had been gone through some little discussion took place relative to papers read at a former meeting. These included Mr. Arthur Lupton's paper "On Visits to Foreign Mines;" Mr. G. G. forth's paper "On an Apparatus for Detecting Small Quantities of

fire-damp." In addition to these there was on the agenda an address on Mr. W. E. Teale's paper "On the Safe Lighting of Mines," together with the reports of the Safety-lamp Committee. The proceedings did not last very long, and were carried on with the greatest unanimity. In the evening the annual dinner took place at the King's Head Hotel, and as usual was fairly well attended by members, when the annual speeches were delivered, little reference being made to the amalgamation with the Derbyshire Institute, which, it will be remembered, fell through at the instance of the council of the latter body.

FOREIGN MINES.

ALAMILLOS.—July 16: In the 20, driving west of San Martin shaft, the lode is small, and of no value. The lode in the 20, driving west of San Agueda shaft, is a promising appearance, and produces $\frac{1}{2}$ ton per fathom. In the 50, driving west of San Felipe's shaft, the lode is well-defined, and contains stones of ore. The lode in the 55, driving east of San Enrique's shaft, contains unproductive ore. The lode in the 130, driving east of Taylor's engine-shaft, the lode is small, and of no value. The lode in the same level, driving west of Taylor's engine-shaft, is unproductive. In the 115, driving west of Taylor's engine-shaft, the lode has improved in value to $\frac{1}{2}$ ton per fathom. The lode in the 80, driving east of San Judd's shaft, the lode became poor a few days since. In San Victor's engine-shaft, sinking below the 80, the men are working well, and good progress is being made. The lode in Roda's winze, sinking below the 60, has fallen off in value to $\frac{1}{2}$ ton per fathom. In Antero's winze, sinking below the 50, the lode is small, and of no value. Pulido's winze, is going down below the 50 in good stopping ground; worth 1 ton per fathom. The lode in Blane's winze, sinking below the 70, maintains its former value—3 tons per fathom. In Diaz's winze, sinking below the 50, the lode is less valuable than it was, its present worth being 1 ton per fathom.

CALIFORNIA GOLD.—Alfred Rickard, July 24: Telegram: Mill run 497 tons, yield 42400 (3400).

COLORADO UNITED.—July 5: Since my last we have been busily engaged in hoisting and pumping the water from the mine. I am happy to say we have an ordinary good luck, having lowered the water over 40 ft. It is now 12 ft. below the 9th level. For the next 75 ft. or so in depth I think we can reckon on being able to lower it from 7 to 8 ft. a day; after that it will take longer to get the water, and we shall not be able to lower it so quickly. However, when we reach the 11th level we can start that pump; it throws a larger body of water than the one we are at present working. I omitted to mention in my last letter that the lower Brown tunnel cross-cut was filled with sand. Until this is cleared out we cannot complete the driving of the cross-cut into the Coin shaft. T. Williams and party (four men) have taken a lease on one of the old brown stulls, while Reynolds and party (three men) are running on lease of the old stulls on the Coin. Both these parties will start to run the dirt and dig on Monday, July 7. Dering and M'Graw have taken a lease on the Chiles Beach some 300 ft. west of any previous working. They are sinking a shaft on surface, and are now down 23 ft.; the lode is carrying a nice crevice, and shows about 1 in. of mineral, which appears to be increasing in size and quality as depth is gained. They pay a royalty of 25 per cent. Ruston and Co., on the Coin lode, have started a shaft 175 ft. east of the tunnel; they are now down 6 ft. The shaft is carrying a small streak of rich quartz, and from 2 in. to 3 in. of native silver rock. The party sinking on the Blaine lode are now down on the 60 feet; the rock has been extremely hard and the crevice small, but the crevice is now opening out and another character of rock appearing, which will give a better chance for the mineral to open up.—The Mill: Last Monday (June 30) we were employed in securing the dam, some of the rock resting having been washed away, and Friday being the Fourth of July, and national holiday, no work was done on that day; but for the time the mill on this week it has done good work. The mineral in the dirt is very thin, but a much better quality. We have on hand 15 sacks lead headings, and about 30 sacks zinc headings. During the fortnight the lessees have sent away 30 sacks.

DENVER GOLD.—Frank S. Craven, July 7: Work in the Kansas Mine for the week ending July 5 was not very extensive, and there are no changes in the ground worthy of comment. The results of the milling for that week (6½ days) show a pretty general improvement. No. 20 West, North Vein, 89 tons ore, and 1½ oz. gold; No. 20 West, North Vein, 46 tons ore, and 12½ oz. gold; No. 20 West, Main Vein, 8 tons ore, and 27½ oz. gold; No. 20 West, Main Vein, 13 tons ore, and 18 oz. gold; No. 20 West, Main Vein, 13 tons ore, and 18 oz. gold; No. 20 West, Main Vein, 13 tons ore, and 18 oz. gold. No netting ore has been sold, but most of that mined in June will be sold during the present week.

DEVALA MOYAR GOLD.—Manager, July 27: Last Monday we had very heavy rain, the fall being from 10 to 15 in.—Salomon's Reef: The 60 ft. level has been extended 4½ ft., the reef in it being about 7 ft. thick. I have cleaned up a lot of quartz crushed from this level, and obtained 9 ozs. 2 dwts. refined gold, being 2 dwts. 19 grs. per ton, which is a slight improvement. The 140 feet level has been driven 7 ft.; the reef contains gold, but it is much broken up. I expect, however, that as we penetrate into the hill we shall find it better armed. We have been unable to work in the winze owing to the quantity of water in it. The lower tunnel which will drain it is now within 15 ft. of the bottom of it. A landslip near the mouth of this tunnel was occasioned by the rocks, but it will not involve more than a week's delay. Harewood Tunnel has been driven 24 ft., and there are indications that we are approaching the reef. **EBERHARDT.**—Frank Drake, June 23: Drift 2 from 60.0 ft. west advanced 1 ft.; total, 656 ft. The rock, greyish line streaked with spar. If the quartz on the incline raise above makes down to this level again, as I believe it will, I shall hope to cut into it by next week. Incline raise advanced 6 ft.; total, 91 ft. Mostly in quartz, still showing some ore, but of low grade. The position of the shaft the past week has been about level instead of the previous incline upward, which leads me to hope it will soon take a pitch downward again, where it will be better convenient and speed it can be followed with the air drills.—Machinery and Ventilation: The machinery having been much service requires more than ordinary care to keep it up to good work. Warmer weather has come, giving improved ventilation in our workings. But our chiefest concern is to get better mineral, and in larger amount.

FORTUNA.—July 16: Canada Inco's Mine: The 70, driving west of San Pedro's shaft, is holed to the cross-cut driven south from Henty's shaft many years ago. In the 90, driving in the same direction, there is a strong and open lode, but somewhat reduced in value in the past few days, its present worth being $\frac{1}{2}$ ton per fathom. The machinery having been much service requires more than ordinary care to keep it up to good work. Warmer weather has come, giving improved ventilation in our workings. But our chiefest concern is to get better mineral, and in larger amount. **LOWDES.**—July 16: The 120, driving east of O'Shea's engine-shaft, is disarranged and unproductive. The 110, driving east of Lowdes's shaft, is started from the bottom of the shaft; the lode is open and of a promising appearance, producing $\frac{1}{2}$ ton per fathom. In the 100, driving east of Lowdes's shaft, there is a regular lode, consisting of quartz and stones of ore, worth $\frac{1}{2}$ ton per fathom. Lowdes's shaft sinking below the 100 is completed to the necessary depth for a 110 ft. level. Osman's mine sinking below the 90 is down to the 100.—Los Salidos Mine: The 175, driving west of Taylor's engine-shaft, having been productive for a great length, is now suspended. The lode in the 160, driving east of Taylor's engine-shaft, has slightly improved, but is not producing enough ore to value. In the 145, driving east of Taylor's engine-shaft, a valuable piece of ore ground is being opened up worth 3 tons per fathom. The lode in the 130, driving in the same direction, is changeable, and is present rather small, producing $\frac{1}{2}$ ton per fathom. The men are getting on well with the sinking of San Miguel's shaft below the 130. Good progress is being made in Digma's winze sinking below the 120; the lode is scarcely so productive as it was, its present value being $\frac{1}{2}$ ton per fathom. The usual quantity of mineral was delivered into the stores in the past month, during which the lode did not undergo any change of importance. The works at surface are working on steadily, and the machinery is in good condition. We estimate the savings for July at 300 tons. The tributers returned 123 tons of ore in the past month.

San Antonio Mine: The lode in the 65, driving east of Henty's engine-shaft, is very large, with good stones of ore; worth $\frac{1}{2}$ ton per fathom. In the 55, driving west of Henty's engine-shaft, a good length of valuable lode has been driven through, but it is now in contact with a strong cross-course. The lode in the 40, driving east of El Tesoro's shaft, is strong, but not yielding any ore. The lode in the same level driving west of El Tesoro's shaft, we expect to intersect the lode shortly. The lode in Misto's winze, sinking below the 55, is very wide, containing chiefly of calcareous spar and lead ore; worth 1 ton per fathom. The usual quantity of ore was delivered at the Fortuna Smelting Works in the past month, and the stores are yielding fairly well at present. The surface works are kept on regularly, and the machinery is in good working order. We estimate the savings for July at 75 tons. The tributers returned 26 tons of ore in the past month.

GREAT ZARUMA.—Nicholls, May 31: At Porto Velo every possible effort is being used to clear the old works to the bottom; the crust is, however, very extensive, and the ground on the hanging-wall particularly heavy, requiring large timber to secure same; our progress, therefore, is necessarily slow. Every foot cleared goes to prove that the former workers must have extracted a very large body of quartz, and under difficulties that only very rich returns could have made remunerative. I regret to say I cannot as yet say how long it will take us to attain the desired end. I can, therefore, only ask your further patience until the completely cleared is a most important work, and one which may possibly very favourably affect the future. By the next mail I will forward a full report of the various works, together with assays, and, should it be necessary, will not omit telegraphing you.

—Telegram (received July 17): Bottom Porto Velo reached; lode 12 ft. wide; average, 2 ozs.; strongly recommend permanent works. Reply.—NICHOLLS.

HOOVER HILL.—July 1: Mine: The sinking pump in the Gallimore shaft has been put in order, and work has been resumed in the bottom. The Briol's shaft is cut down 22 ft. below the 70; the ore being broken here is improving. —Hawkins: The ore in No. 1 stop (the ore being broken here is improving. The ore body continues small, but the improvement in quality is maintained. The exploratory drift west from Hawkins' shaft, in the 135 ft. level, is being pushed on.—Mill: The production for the month of June amounts to 116½ tons. The stoppage of work in the bottom of Gallimore shaft during the greater part of the month, caused by the sinking pump getting out of order, has caused a fall in the produce of the ore mined.—N.B. The secretary informs us that the bar of gold (June produce) has been received at the company's offices.

KAPANGA GOLD.—Telegram: Phillip Argall: Out Scotty's in No. 8 level. Prospects good.

LAKE SUPERIOR NATIVE COPPER.—Capt. Williams, June 21: No. 2 shaft below No. 3 level sunk 6 ft. Total distance 256 ft. 6 in. No change since my last report. No. 2 level, south of No. 2 shaft, driven 8 ft. Total distance 150 ft. 3 in. Lode open, but still producing very little copper. I have put the winzemen to work for starting when required. The lode is 5 ft. wide, very hard, and carrying good heavy millwork. The lode is the best stopes we have yet started. No machinery has yet arrived. The jig we got from Bruce are ready to start as soon as we get the wirework from the south shore, which I am expecting by every boat.

LINARES.—July 16: Pozo Archo: The lode in the 135 driving east of Warner's engine-shaft is very open, containing stones of ore. In the 130 driving west of Warner's shaft, the lode has improved in value during the past fortnight to 3 tons per fathom. The 125 driving west of Peill's engine-shaft continues poor. In the same level driving east of Peill's engine-shaft the lode is a little more open;

and contains stones of ore worth $\frac{1}{2}$ ton per fathom. The 120 driving east of Peill's engine-shaft still continues to open up good stopping ground, valued at 2 tons per fathom. The men are getting on slowly with the sinking of Peill's engine-shaft below the 135. No. 252 winze is going down below the 65 in a good lode, producing $\frac{1}{2}$ ton per fathom. In No. 256 winze sinking below the 115 the lode produces $\frac{1}{2}$ ton per fathom, and the ground is very easy for sinking. No. 255 winze sinking below the 105 is situated a few fathoms behind the 120; east of Peill's engine-shaft; the lode is worth 1 ton per fathom.—Quintones Mine: In the 115 driving west of Taylor's engine-shaft the lode contains stones of ore, but not enough to value. The lode in the same level driving east of Taylor's engine-shaft yields good stones of ore, worth $\frac{1}{2}$ ton per fathom, and the ground is easy for driving through. In the 100 driving east of Taylor's engine-shaft we have not yet reached the lode to the east of cross-course. The lode in the 90 driving east of Taylor's engine-shaft is opening up good stopping ground, valued at 1 ton per fathom. The lode in the 65 driving east of Judd's shaft is compact and regular, and produces 1 ton per fathom. In Roque's winze sinking below the 100 the lode has fallen off in value to $\frac{1}{2}$ ton per fathom.

MYSHORE GOLD.—B. D. Plummer, June 23: Mining Operations: We have just completed the roads, and expect to empty the mine of stuff this evening, then we shall have fair sailing with the works at the 173. There is nothing of importance that I can inform you of from the ends, but the lode in the bottom of the underlay shaft continues to hold out great encouragement; it will yield 1 ton of stuff per fathom, or 25 tons for the full length of the shaft. The assay this week is 1 oz. 1 dwt. 5 grs. fine gold per ton. The lode is hard and compact quartz; the speed in sinking may appear small, but I believe that everyone is doing his best. The shaft is now 36 ft. 10 in. below the 173 ft. level, and the last 20 ft. has been productive. The machinery works very well, and the health of the Europeans is good. Stamping progresses very well. We are putting through the usual quantity of stuff, and the amount of amalgam we are taking off the copper plates is equal to last month.

PITANGUI GOLD.—T. S. Treloar, June 17: The produce for May from 250 tons of mineral raised during the month was 1204 ozs. of gold, or 5¼ ozs. per ton, worth at 85. 8d. per oz., was 5184. 14s. The estimated cost at Exchange 21d. was 4097. 3s. 3d., leaving an estimated profit for the month of 1077. 10s. 9d. I have carefully perused the managing director's observations under the head of general operations in his letter of the 5th ult. The director's instructions relative to the prosecution of the Bahu level shall be carried into execution as soon as we can make the requisite addition to our force, and I will pay due regard to the limit named. The necessity for explorations here, not only in the clay, but in the jacking also, cannot be overestimated, for, up to the present time, we have not been able to get over the whole of the old workings, saying nothing of a great extent of new ground, nor of Morro das Almas; and it is quite within the bounds of possibility that the further development of the property might yet lead to such results as would warrant the mine being pronounced a success. There is no change in the mine worthy of notice.

PIERREFITTE.—July 21: South Mine: The manager reports the lode in the bottom level is again improved, and I think I do not exaggerate in estimating it at 9 tons of lead ore per fathom. We have cut into this branch about 10 ft., and we see no sign of the other wall yet. If we had room we could break large quantities of ore, but up to the present time only four men have been able to work, two at a time, so that not much has been broken. I had been expecting that next week four extra men could go there, but I fear we must wait a few days more before they can work there to advantage. I expect an increase in the ore return this week, and if the lode holds in the No. 2 level, and it has every appearance of being a lasting lode we shall very soon considerably increase our returns. Some of the stopes have fallen off lately, notably the stopes in the south-east middle level, and the lode in the middle level and north-west has become small. The No. 2 stopes above the north-west middle level, however, if anything is improved. During the past week we have been short of water, and were obliged to work the engine to drive the machinery at the main floors, whilst at the No. 2 and 3 floors we were unable to work during two days from the same cause. Yesterday, however, we had heavy rains, and I am hoping that we shall have enough water to work all the machinery this week. The reason that the water became short so suddenly is that the farmers commenced putting it on their fields.

RUBY AND DUNDERBERG CONSOLIDATED.—June 29: Dunderberg: There are 20 tributers at work. There is no special change to report; 12 tons tribute ore shipped during the week.—Home Ticket: There has not been any work done in the mine during the week, the contractors who were sinking the winze having refused to continue the drift at the same figure were discharged; we could not get others to take their place on satisfactory terms until to-day when work was resumed. There are no tributers at work in this mine at present, and it is doubtful if we will succeed in getting others until the bottom level develops some good ore; 9 tons of tribute ore shipped this week; 100 tons of stuff at work.—Lore Byron: There has not been any work done in the No. 2 cave during the week, consequently there is no change to report. The tunnel has been advanced 11 ft. during the week; total 26 ft. from No. 2 winze and cave. There has been little or no work done at the end of the drift, north of No. 1 cave during the week.—N.B. The small amount of work advised in the foregoing report was owing to the difficulty experienced by the manager in procuring experienced miners to work on tribute and by contract. The present dullness of business at Eureka has caused many of the best men to leave the camp. This also has been the reason of the small shipments of ore advised in the last few telegrams.

—Telegram, July 22: 30 tons ore shipped; 25 tons smelted, producing 3 company \$166.—N.B. The small shipments of ore advised the last few weeks are owing to the difficulty, at present, of procuring reliable miners to work on tribute.

SANTA BARBARA GOLD.—T. S. Treloar, June 4: The mineral treated at the spalling-floors during the month of May amounted to 954 tons, of which 282 tons were rejected, and 672 tons stamped. The total produce obtained was 1000 ozs. of gold, or equivalent to an average of 1558 ozs. per ton stamped. This produced 1000 ozs. of gold, or equivalent to an average of 1558 ozs. per ton stamped. The estimated working cost for the month of May, at exchange 21d., being 10614. 15s. 2d., leaves an estimated excess of expenditure of 6071. 8s. 2d. on the mine working account during May. There was no expenditure on capital account during the month.

—Mr. Treloar, June 4: There is no change to note in the appearance of the lode in the bottom of the mine north. The level we are driving at the 53 towards Holland's shaft, and hope to communicate south also in a few days. Sinking is progressing satisfactorily. At surface the repairing of No. 4 stamping mill is in hand, and will probably occupy some six weeks or two months longer. We have succeeded in selling by auction 32 of the mules heretofore used for working the whim at a fair average price. The head mechanic reports that during May six rollers had been made for the mine, and one pulley replaced; two gratings made for the laundries of the hauling-wheel, and 23 ft. of ladders made, as well as 20 ft. of double skip-rod, prepared with eight filling pieces for the same. A nine-foot skip-rod complete had been put up; two doors and three windows made for the oil room. Extensive repairs had been done to mine wagons in the shape of frames, axles, bearings, and the binding and wedging of wheels. A new iron skip had been got on. In the reduction department the arms of the No. 4 stamps wheel had been removed, the axle taken out and dismantled, and a wooden wheel was worn had been relaid and turned; a new axle had been taken in hand and prepared to be lined, the old one being rotten. The No. 2 stamping mill had been pitched, the feeding hoppers repaired, and cams secured in the axle of same. The wheel of the No. 1 stamping mill had also been repaired, and the axle made. The axle and an arm-head plate repairs in value.

The Mine Captain reports as follows for May:—Holland's shaft has been completed to the 60, and sinking will be carried on with all possible speed. The ground has considerably improved for blasting, and becomes more mineralised; I believe from its appearance that in a few fathoms sinking this shaft will be yielding fair mineral for the stamps. Ground is being blasted out at the 53 to form a shoot for receiving the mineral from the old mine, so as to economise labour in filling the skips. This work we expect to finish about the middle of next month.—Stopes: Stopping has been carried on southwards as far as possible, and the lode in the 100 ft. level, the lode continues from 2 ft. to 9 ft. wide of fair quality, but the quantity of mineral quarried at this point has been comparatively small owing to our leaving a pillar stand on the top of this stopes for security against the crush in the old mine. Driving in this direction with such a shallow stopes, also driving north towards the new shaft, and sinking the winze and the shaft where so many shallow lodes have to be blasted, accounts for the large consumption of dynamite during May. The end, north of winze, has been extended during the month 3 fms., making its total distance north of the winze 5 fms. The lode in the end is about 9 ft. wide, with some fair lines of pyrites in it, and a large quantity of quartz, which is of rather low quality. We have not yet commenced to sink the winze at full speed, as it is not convenient to adopt means for hauling the stuff until the 53 end is holed to Holland's shaft; the lode in the bottom is 9 ft. wide, of fair quality, with a very promising appearance. The timberwork has been very little during this month—three pieces put in for dividings, and to carry the skip-rod in Holland's shaft, and 5 fms. of skip-rod put down, and tram-rod kept in repair. The output of stone from the mine during the month is 1782 wagon-loads, and the number of wagon-loads per man 37.33.

ST. JOHN DEL REY.—Telegram from Morro Velho, dated Rio de Janeiro, July 21: Produce 12 days (first division of July) 6500 ozs., value 25184; yield, 35 ozs. per ton. Profit for June 10002.

TOCOPIA.—George E. Tilly, May 31: Carmelita Mine: At Jose's shaft sinking below the No. 11 level a fork has been sunk, and everything made ready to put in the skip-rod in the new lift. The lode contains a branch 6 in. wide on the hanging-wall side, which produced during the month occasional stones of rich quality copper ore, No. 11 level, east of Jose's shaft, has opened up some excellent tribute ground in the past month, it having yielded 1477 quintals of copper ore, worth 12½ pence per quintal. The lode, although a little fallen-off in value, is 3 ft. wide, with a good branch 3 in. wide on the hanging-wall, and disseminated throughout with copper ore, although presenting a most encouraging appearance. At No. 1 winze sinking below the No. 11 level, east of Jose's shaft, there is nothing new to advise. The ground in cross-cut, north of the No. 11 level, west of Jose's shaft, is favourable for driving. The lode in No. 10 level, east of Jose's shaft, yielded in the month's driving 250 quintals of copper ore worth 10 pence per quintal; it is now become narrow and unproductive. The lode at No. 10 level, west of Jose's shaft, is present a good specimen of a conglomerate chiefly of soft pebbles impregnated with ore and iron pyrites, and is a congenial character for bearing copper ore. In the past month the tribute-pieces much improved in yield, more especially those working in the back of the No. 11 level, east of Jose's shaft, and they are still maintaining their value. The returns for the past month are:—Plata, 2144 quintals 51 lbs.; Despinta, 5011 quintals 5 lbs. Total, 7115 quintals 63 lbs. In accordance with instructions received on May 17 the following operations have been suspended:—Putting double skip-rod in the new lift and making preparatory arrangements for cutting the plate at the No. 12 level. Sinking No. 1 winze below the No. 11 level, east of Jose's shaft. Driving the No. 10 level, east and west of Jose's shaft. Sinking No. 3 winze below the No. 9 level, west of the last-mentioned shaft. The No. 11 level will be also suspended when it becomes poor. It appears this level has entered in a

good run of ore-bearing ground of precisely the same nature as that in the No. 10 level, where it has proved to be continuous, and although not sufficiently rich to take away by the network system, yet it is profitable tribute ground. In the old levels above rich deposits of ore were found against the cross-course called by the miners here "Barrido;" it is about 300 metres east of Jose's shaft, and can be easily traced on the surface, but owing to the levels being crushed together nothing can be seen in the mine. Judging from the highly congenial appearances of the lode in the Nos. 10 and 11 levels there is a great probability of discovering most productive and concentrated deposits of ore near this cross-course. We shall finish taking away all the productive ground in sight, in two months from this date.

UNITED MEXICAN.—Mr. Hay, Guanajuato, June 30: Mine of El Diamante: In the front of Adela west this end continues to improve; we begin to find at intervals spots of good ore. Last week we sent 3 cargoes to Duran. In the pozo of San Antonio the lode is now reduced to a width of 30 centimetres, but the ore has given out entirely; we cannot fall to hold in soon the contratiempo of Santa Rosa. From this winze we sent last week 6 cargoes to Duran. In the cross-cut to the alto of frente No. 2 of Santa Rosa west no change has been noticed in the nature of the rock during last week's advance. In the pozo of San Ignacio the vein is still very narrow, but ore continues to be found; we have remitted to Duran 12 cargoes of two classes of ore. Total output, 22 cargoes.—San Cayetano de la Ovejera: In the frente No. 3 of San Juan east the width of the lode has increased to 1 metre, with ore ramified all over it. In frente No. 5 of San Juan west the vein is now 50 centimetres broad, and includes a strip of 20 centimetres of fine ore. In frente No. 5 of San Juan east the ore has given out in this end, but to make up for the loss of this working we have resumed work in pozo No. 7 of San Juan. In last public sale of the 26th inst. we still sold 2¼ cargoes from this end for \$327.

At the bottom of the winze, in the pozo No. 6 of San Juan, is still unproductive, we have abandoned it, and have opened another to be called pozo No. 7 of San Andres, sunk from the level of frente No. 10 of San Andres west. In frente No. 10 of San Andres west the lode is 35 centimetres broad, and seems to be improving. In frente No. 11 of San Andres west the lode is only 75 centimetres broad, and produces but little ore for the present. In frente No. 11 of San Andres the strip of good ore has ceased, but the vein of a width of 80 centimetres is all in fair ramified ore.

In pozo No. 1 of San Andres the lode is 150 metres wide, with ore thinly ramified in it. We have not discovered ore in pozo No. 2 of San Andres. On last Thursday we sold in public sale about 475½ cargoes for \$7265, and during that week 412 cargoes were remitted to Duran, as we sold all the bonito we had in the previous public sale. We could only gather 8 arrobas (arriba 25 lbs.) of rich ore up to last Saturday, for which reason I kept it back to increase by so much this week's product. The extraction from San Cayetano de la Ovejera for the week ending 28th inst. was 888 cargoes of hacienda ore, to which, if we add 22 cargoes from El Diamante, we have a total output of 910 cargoes of hacienda ore from the mines of the new concern. As St. John's day fell on Tuesday, it interfered a good deal with the work of the mines. Monday is, as a rule, a bad day as regards labour, but the following day being a holiday no work whatever was done on Monday and Tuesday, so that we really lost 36 hours. Our agents in Vera Cruz have written that they forwarded to me on the 20th inst. 20 tipping-wagons they received per American, but I am afraid that they will be detained on the road, as a freshet has washed away about 50 metres of embankment near Tula, and it is necessary to carry all goods and passengers over this gap. In the frente of San Martin adit, though no silver has yet been found in this end, there has been since last Friday a slight change in the appearance of the rock, and naturally we hope this may be a favourable sign. Returns from the mine of San Cayetano de la Ovejera for the week ending June 23, 1883: outlay, \$4691. In it is charged the amount of cost of wagons and charges on them in Vera Cruz. Returns from El Diamante Mine, \$199; outlay, \$311.

WATSON BROTHERS MINING CIRCULAR.

WATSON BROTHERS,

MINKOWNERS, STOCK AND SHARE DEALERS, &c
1, ST MICHAEL'S ALLEY CORNHILL, LONDON

No call has ever been made in East Blue Hills, nor do we anticipate one. The mine was brought out in 12,000 shares of 5s. each, without premium or promotion money, and has sold tin to the value of 32701. 5s. 4d. The shaft has been sunk 10 fathoms under the tin ground and new levels commenced, worth 101. per fathom, and we hope to have a good run of ore ground here and increase the returns. During the summer months the want of water has interfered with stamping the tin. Thus, some months the mine made profits, and in others when the tin could not be stamped a loss. For some time past the expense of sinking the shaft has added to the cost. As fresh arrangements have been made in regard to stamping, we hope in future good sales will be made. The agent is of high standing as a miner, and one upon whom shareholders may rely. He writes us this week:—"I am pleased to inform you that the lode in the bottom of the shaft, where we are now opening out for plat and 10 fm. level, is from 5 to 6 ft. wide, and as strong and masterly a lode as can be desired at that depth, and in the western side it is producing capital stones of tin, forming a sort of leader in the middle of the lode. Altogether, it is as promising a young mine as can be seen, and will most assuredly result in a good one." This, from so cautious a man as Capt. Bennett, is saying a good deal.

The first sale of tin at East Blue Hills, at the end of 1881, brought 631. 5s. per ton; the next in December (651. 15s.) being the highest price reached. It then gradually dropped, and reached 491. 10s. in January, 1883, and afterwards it fell to 451. The last sale of all brought 491. 17s. 6d. Thus the fall in all the tin sold has made a difference of at least 6001. in our returns. The dead work done in the mine, such as driving levels, sinking shaft, &c., has cost 27001.

North Blue Hills was a small speculation, about which much cannot be said at present.

Driving north at the 50 and on a small cross-course will be at once commenced at the New Caradon to intersect the South Caradon and other lodes, and particularly that one which yielded such good ore in the adit.

Out of 90 shareholders in D'Eresby Mountain only nine applied for debentures to the extent of 3501., though the money was absolutely required to bring the mine into a profitable state, after nearly 20001. having been spent on a new shaft from surface, and an expenditure on the mine altogether of upwards of 20,0001. We have, therefore, laid another plan before the shareholders which if they adopt they may possibly recover the money they have spent with a very small further outlay. If they decline this offer may make the mine pay very shortly. We trust, however, all will fall in with and aid the new proposal. It is the only alternative.

At West Crebor a 95 fm. level will be commenced in about a fortnight.

The lode in the 102 end east at Prince of Wales has improved to 3 tons of copper ore per fathom, besides being good work for tin. In the back of this level the lode is worth 2 tons of copper ore and good tin per fathom. In the back of the 45 the lode is 8 ft. wide, worth 201. per fathom for tin. The costs have been considerably reduced here, and the above points look well for increased returns.

It is a mistake to suppose that lead was never so low before. In 1792 it was down to 101. per ton. In 1832 it was 101. 10s. per ton, or about the present price.

Since the above remarks were written upon East Blue Hills we have received a report from another agent, dated July 23, wherein he says "No one ever expected to meet with such a lode as we have in the bottom of the shaft at the present time. It is a monster lode, and all saving work for tin. The lode is more than 2 ft. wider now in the shaft than it was when we took down the lode the last time; if it should cut rich it will be another West Kitty, and we can go hundreds of fathoms in depth, and the lode is going down in a beautiful channel of ground."

MINING AND INDUSTRIAL PROGRESS IN COSTA RICA.—The concession made in July, 1882, for the introduction of the electric light is assuming a definite form, and the Government have promised a subvention of \$200 a month for five years from the time the light is erected, which will probably be in a few months' time. The gold and silver mines called La Trinidad, Sacra Familia, and La Union are in active work, and several others are only waiting the assistance of foreign capital and improved machinery to work to advantage. Exchange, after ruling for nearly two years at the unusually high rate of 15 per cent. to 20 per cent. for 90 days on London, and 18 per cent. to 24 per cent. for 60 days on New York, began to decline towards the latter half of the year, and closed nearly at par—9 per cent. premium on London, and 13 per cent. on New York. This was partly owing to the introduction of a large quantity of silver into the republic—in payment of exchange bought for Panama, the effect of which has been very noticeable on the currency of the country—and partly on account of the present large coffee crop. Discount has not varied to the same extent, but has kept pretty firm between 12 per cent. and 18 per cent. for three months' paper, or an average of about 15 per cent. for the year.

The SUBSCRIPTION LIST WILL CLOSE ON MONDAY, the 28th instant.

THE CENTRAL AFRICAN GOLD EXPLORING EXPEDITION (LIMITED).

CAPITAL £10,000, IN 10,000 SHARES OF £1 EACH.

5s. per share to be paid on application, and the balance on allotment. If no allotment be made the deposit will be returned in full.

DIRECTORS.

HENRY BARTLETT, Esq., C.B., Fulham Park Gardens, S.W.
Lieut.-Colonel TIGHE, Russell House, St. Albans, Herts.
G. BARNETT SMITH, Esq., F.R.G.S., Highgate, N.
(With power to add to their number.)

BANKERS—Messrs. BROWN, JANSON, and CO., 32, Abchurch-lane, London, E.C.

SECRETARY—H. S. COOKE.

OFFICES—46, QUEEN VICTORIA STREET, E.C.

ABRIDGED PROSPECTUS.

This company is incorporated for the purpose of exploring, prospecting, and developing the mineral resources of Central Africa.

The capital of the company has been advisedly fixed at £10,000, as, in the opinion of the directors, this sum will be sufficient to equip and defray the expenses of the expedition in prospecting in the region indicated, and also in acquiring titles and concessions for working the same after their value has been tested and ascertained.

When these have been secured a company or companies will be formed to purchase such concessions, and the profits derivable from the sale thereof will be divided *pro rata* amongst the subscribers to the Central African Gold Exploring Expedition, the originating or pioneer company.

Mr. J. M. Stuart, M.Soc.Arts and F.R.G.S., whose attainments and experience as a mining engineer are universally recognised, will proceed forthwith to the Zambesi river, and report upon properties he has already personally inspected, and negotiate for the acquisition of those having the richest and most valuable prospects.

It is expected that in less than six months the company will have secured properties which by resale will realise a profit of at least 500 per cent.

The company starts unhampered with any agreements. No promotion money whatever will be paid, and the entire subscription will be devoted to the objects of the company.

THE CENTRAL AFRICAN GOLD EXPLORING EXPEDITION (LIMITED).

Prospectuses and Application Forms, with copy of extracts from papers and reports by the late Sir Bartle Frere, St. Vincent Erskine, the late Thomas Baines, F.R.G.S., Sir John Swinburne, Capt. Burton, and Carl Mauch, testifying to the value of the African gold fields, may be had on application to the Secretary, at the offices of the company, 46, Queen Victoria-street, London, E.C.

PROVINCIAL STOCK AND SHARE MARKETS.

CORNISH MINE SHARE MARKET.—Mr. S. J. DAVEY, mine shareholder, Redruth (July 24), writes:—Our market after having been very dull early in the week has become firmer. Dolcoaths fell to 7½, but subsequently recovered to 7¾. East Pools advanced 1. Today Agars, East Pools, and Dolcoaths are in demand. Subjoined are the closing quotations:—Carn Brea, 2½ to 2¾; Cook's Kitchen, 10 to 11; Dolcoath, 7½ to 7¾; East Pool, 42 to 44; Killfret, 3½ to 3¾; New Cook's Kitchen, 1 to 1¼; New Kitty, 1½ to 1¾; North Bury, 1½ to 1¾; South Bury, 1½ to 1¾; Polbarrow, 1½ to 1¾; South Condor, 3½ to 3¾; South Crofty, 3 to 3½; South Frances, 7½ to 8; Tincroft, 5 to 5½; Trevaunance, 1½ to 2; West Basset, 3 to 3½; West Frances, 5 to 5½; West Kitty, 10½ to 11½; West Seton, 4 to 4½; Wheal Agars, 16½ to 17; Wheal Basset, 2½ to 3; Wheal Grenville, 6 to 6½; Wheal Pevor, 1½ to 1¾; Wheal Kitty, 1½ to 1¾; Wheal Uny, 1½ to 1¾; Wheal Coates, 2s. to 4s.

—Messrs. ABBOTT and WICKETT, stock and share brokers, Redruth (July 24), write:—A good business has been done in Dolcoaths this week, and prices have varied considerably, but close at best. East Pool are enquired for at higher prices, and sellers are shy. Tincroft and West Kitty have changed hands at quotations. Closing quotations herewith:—Carn Brea, 2½ to 2¾; Cook's Kitchen, 10 to 11; Dolcoath, 7½ to 7¾; East Pool, 42 to 44; Killfret, 3½ to 3¾; New Cook's Kitchen, 1 to 1¼; New Kitty, 1½ to 1¾; North Bury, 1½ to 1¾; South Bury, 1½ to 1¾; Polbarrow, 1½ to 1¾; South Condor, 3½ to 3¾; South Crofty, 3 to 3½; South Frances, 7½ to 8; Tincroft, 5 to 5½; Trevaunance, 1½ to 2; West Basset, 3 to 3½; West Frances, 5 to 5½; West Kitty, 10½ to 11½; West Seton, 4 to 4½; Wheal Agars, 16½ to 17; Wheal Basset, 2½ to 3; Wheal Grenville, 6 to 6½; Wheal Pevor, 1½ to 1¾; Wheal Kitty, 1½ to 1¾; Wheal Uny, 1½ to 1¾; Wheal Coates, 2s. to 4s.

—Mr. M. W. BAWDEN, Liskeard (July 24), writes:—The mining market continues dull and inactive, with the exception of an enquiry for Pod-an-dra United, Phoenix United, and Tincroft shares on improvements reported. Subjoined are the closing quotations:—Anderson United, 3s. to 3½; Bedford United, 1½ to 1¾; Carn Brea, 2½ to 2¾; Cook's Kitchen, 9½ to 10; Dolcoath, 7½ to 7¾; Devon Consols, 2 to 2½; East Caradon, 1½ to 1¾; East Pool, 41½ to 42; Glasgow Caradon, 1½ to 1¾; Gunnislake (Clitters), 1½ to 1¾; Killfret, 3½ to 3¾; Macra Valley, 1½ to 1¾; Old Gunnislake, 1½ to 1¾; Phoenix United, 1½ to 1¾; Prince of Wales, 1½ to 1¾; South Caradon (Limited), fully-paid, 1½ to 1¾; South Condor, 3½ to 3¾; South Crofty, 3 to 3½; South Devex United, 3½ to 3¾; South Frances, 7½ to 8; Tincroft, 5 to 5½; West Basset, 3 to 3½; West Frances, 5 to 5½; West Kitty, 10½ to 11½; West Seton, 4 to 4½; Wheal Agars, 16½ to 17; Wheal Basset, 2½ to 3; Wheal Grenville, 6 to 6½; Wheal Pevor, 1½ to 1¾; Wheal Kitty, 1½ to 1¾; Wheal Uny, 1½ to 1¾; Wheal Coates, 2s. to 4s.

—Mr. JOHN CARTER, mine shareholder, Camborne (July 24), writes:—The share market is quiet, and little business has been transacted during the week. Dolcoaths have improved to 7¾. Subjoined are the closing quotations:—Carn Brea, 2½ to 2¾; Cook's Kitchen, 9 to 10½; Dolcoath, 7½ to 7¾; East Pool, 42 to 44; Killfret, 3½ to 3¾; New Cook's Kitchen, 1 to 1¼; New Kitty, 1½ to 1¾; North Bury, 1½ to 1¾; South Bury, 1½ to 1¾; Polbarrow, 1½ to 1¾; South Condor, 3½ to 3¾; South Crofty, 3 to 3½; South Frances, 7½ to 8; Tincroft, 5 to 5½; Trevaunance, 1½ to 2; West Basset, 3 to 3½; West Frances, 5 to 5½; West Kitty, 10½ to 11½; West Seton, 4 to 4½; Wheal Agars, 16½ to 17; Wheal Basset, 2½ to 3; Wheal Grenville, 6 to 6½; Wheal Pevor, 1½ to 1¾; Wheal Kitty, 1½ to 1¾; Wheal Uny, 1½ to 1¾; Wheal Coates, 2s. to 4s.

MANCHESTER.—Messrs. R. JOSEPH and W. P. BAINES, share-brokers, Queen's Chambers, Market-street (July 24), write:—The transactions of the past week do not reach a large total, and have been marked by fits and starts dividend, and traffic announcements having had their effect, as they have been made public, and the balance of movement is again favourable, both in the number of cases in which alteration has taken place, and the extent of the variation as against last Thursday's figures. The above remarks apply most particularly to home railways securities, but in the other prominent markets the same record holds good. Foreign funds do not present many phenomenal changes. Argentine Hard Dollar Bonds and Brazilian 5 per cent., with a rise of 1½ and 1 respectively, are the most prominent. Egyptian are only very slightly altered, and that irregularly, preference being ¼ better, whilst United and Daira Sanieh are ¼ each lower. Mexican 5 per cent. mark a fall of ½. Spanish are ¼ to ½, and Russian ½ higher; rest of changes merely fractional. Colonial Government Bonds little moved. Canada 4 per cent. is 1 higher, but Victoria 4 per cent. inscribed being ¼. Corporation Bonds, &c., better where changed, Brad-4 per cent. being ¼ to ½, London 3½ per cent. ½, and Blackburn 4 per cent. ½ higher. Mexican rails announce another decrease of 8000l., but notwithstanding this large reduction the price compared with closing last Thursday is only 1 down. Miscellaneous *ex loco* produce but little business, but prices on the whole (excepting for shares of cotton concerns) keep fairly steady.

BAKES.—Only a poor business passing, but where dealings occur full prices as a rule are obtained. Quotations have undergone no definite alteration, but on an adjustment of figures consequent on the price becoming "ex div." Manchester and Salford record a fall of 6d., to 4s. 6d.

INSURANCE.—As has been the case for a very long time back these shares change hands to a very small extent here. Some attention has been given to quotations, however, with the following result:—Higher: Liverpool and London and Globe, 1½ to 1¾; Royal (Liverpool), 1½ to 1¾; Thames and Mersey Marine, 1½; and Maritime, 1½. Lower: Manchester Fire, 1½ to 1¾; and Queen, 1½.

COAL, IRON, &c.—No business almost without dealings; solitary marriages in Bolekows Pref., Palmer's Shipbuilding, B, and Ebbw Vale being all the business recorded. Changes in quotations as follows:—Higher: Cammells, ¼; Bolekows Pref., ¼; Panclilio Copper, ¼; and Rio Tinto (registered and to bearer), ¼ each. Bolekows, 12½ paid. ¼; Palmer's Shipbuilding, 1½ to 1¾; Bolekows Coal, A, ¼; Llynvi and Tondur Pref., ¼ to ½; and Ebbw Vale Steel, ¼.

COTTON-SPINNING, &c. shares do not show any return to activity; on the contrary, what few buyers there are bid under nominal quotations, and offers are such that they practically preclude business. Where sales are forced lower prices have to be accepted. **TALLOW.**—Anglo Ordinary and Preference little lower; slight rise in Globe Ordinary and Western and Brazil. **TEA.**—Fragrances: Lancashire and Cheshire 3 down, and this is the only change; hardly any transactions marked. **MISCELLANEOUS:** Beyond a further rise in Gas Light and Coke A Ordinary and in Manchester Carriage, A and O issues well;

on the other hand a fall in London and Manchester Plate Glass do not offer feature worthy remark.

RAILWAYS.—Though showing many fluctuations balance of alteration is favourable again. Cheap money and traffic considered favourable, keeping values good, and with good tendency. Dividend announcements have caused some irregularities, but they have chiefly affected the individual stocks. The Great Eastern dividend caused a rise in their stock, whilst North Eastern were acted upon the other way. Trucks, although announcing a traffic return, total decrease of 4653l., are better more or less on all issues on comparison for the week. Americans are again better to a greater or less extent all round.

SCOTCH MINING AND INDUSTRIAL COMPANIES

SHARE MARKETS.

STERLING.—Mr. J. GRANT MACLEAN, stockbroker and ironbroker (July 24), writes:—During the past week the market has been quiet, and prices are steady. The only favourable indication at present is the prospect of a good harvest.

In shares of coal, iron, and steel companies the principal alteration is in Steel Company of Scotland shares, which have advanced from 7½ to 7¾. 9d. Cardiff and Swansea are about 42s. 6d.; Bull's Iron and Steel shares, 10s. to 15s.; Llynvi and Tondur, Preference, 45s. to 50s.; Marbella has declined from 55s. to 52s.

In shares of foreign copper concerns business is quiet. Tharsis are selling from 51. 18s. 6d. to 61. Arizona has improved from 23s. to 25s. 3d.; Bratsberg are 25s. to 27s. 6d.; and Tocopilla, 2s. 6d.

In shares of home mines there is no particular alteration to notice. The dull and drooping tendency of the metal markets is very discouraging to investors. D'Eerby Mountain Mine is again being reconstructed. Carn Camborne are at 5s. to 7s. 6d.; Devon Friendship, 1s. to 1s. 6d.; Drakewalls, 2s. to 4s.; East Wheel Rose, 7s. to 9s.; East Van, 4s. to 6s.; Ecton, 17s. 6d. to 22s. 6d.; East Blue Hills, 3s.; Great Holway, 5s. to 13s.; Gorsead and Merilyn, 7s. 6d.; Goglan, 1s. to 2s.; Killfret, 6s. to 8s.; Mounts Bays, 2s. to 3s.; North Bury, 2s. to 4s.; New Langford, 2s. 6d. to 3s.; Old Shepherds, 9s. to 11s.; Old Gunnislake, 1s. 6d. to 2s. 6d.; Prince of Wales, 2s. 6d. to 3s.; South Condor, 3s.; South Frances, 7½ to 8; St. Just United, 6½; Tregontrees, 3s. 3d.; Tamar, 1s. to 2s.; Trevaunance, 4s. to 6s.; Tincroft, 5½ to 6; West Holway, 2s. 6d. to 3s. 6d.; West Seton, 70s. to 80s.; Wheal Agars, 16s. to 17s. 6d.; Wheal Basset, 2s. 6d. to 3s. 6d.; and Wheal Kitty, 9d. to 11s. 3d.

In shares of gold and silver mines there has been more business doing. Montaneros are selling at 37s. to 40s. The favourable telegram from Mysore has brought Indian shares generally into requisition. Richmonds are also higher at 52s. 6d. to 57s. 6d. The meeting of the California Company will be on Aug. 7, when the dividend question will likely be settled. Antioquia are at 1s. 3d. to 2s. 6d.; Asia Minor, 2s. 6d. to 5s.; African Gold Coast Syndicate, 60s.; 60s.; 10s. to 15s.; Chile, 2s. 6d. to 4s. 6d.; Consolidated, 1s. 6d. to 2s. 6d.; Cartago (fully paid), 17s. 6d. to 20s.; Cankim Bamoo, 2s. 6d. to 3s. 6d.; Chontales, 3s. 6d. to 4s. 6d.; Eschquer, 1s. 3d.; Emma, 3s. 3d. to 5s.; Gold Coast, 2s. 6d. to 3s. 6d.; Guinea Coast (preferred), 1s. 3d. to 2s. 6d.; Great Zambesi, 7s. 6d. to 12s. 6d.; Indian Wentworth, 4s. 6d. to 5s. 6d.; I.X.L., 1s. 3d.; Indian Glenroch (new), 1s. 6d. to 2s. 6d.; Isabelle, 2s. to 3s.; Koinobor, B, 2s. to 3s.; Mysore, 3s. 9d. to 11s. 3d.; Orita, 17s. to 19s.; Port Phillip, 1s. to 2s.; Schwab's Gully, 6 to 6½; Suro Tunnel, 1s. 6d.; Spitzkop (Lydenberg), 17s. 6d. to 22s. 6d.; Tachau, 1s. 3d.; Tollima, A, 5 to 6½; Victoria, 10s. to 11s.; and West Callao, 2s. to 3s.

In shares of oil and miscellaneous companies prices are steady. Elmore and Company, Debentures, offered at 46. Home Mines Trust are 15s. to 12s.; London and South African Exploration, 5½ to 5¾; Lawes' Chemicals, 4¾ to 5¾; and Nobel's Explosives, 15¾ to 15¾.

EDINBURGH.—Messrs. THOS. MILLER and SONS, stock and share brokers, Princes-street (July 23), write:—Railways have made a further advance since last report. The Great Eastern dividend announced on Friday had a good effect on the railways in general. Great Eastern itself has risen about 5 within a week. Preferential shares continue in demand. Canadians and Americans have been steady, but the former have been weaker to-day. Bank stocks, where altered, have risen, with the exception of National, which is 2s. lower, and Commercial, which are 5s. lower. Westfield Oil have fallen from 7½ to 5½. Since Wednesday last Carn Camborne has risen from 55 to 55½. Glasgow and South-Western from 110½ to 111½. Great North from 44½ to 45½. North British from 95 to 97½. Bank of Scotland has advanced from 31½ to 31¾. British Linen from 30½ to 30¾. Royal from 21½ to 21¾. Clydesdale from 21 to 21½. Union from 20½ to 20¾. Very little has been done in mining shares with the exception of Arizona, which have changed from 24s. to 24s. 9d. Lanark Oil have gone from 52s. to 54s. Midlothian from 41s. 6d. to 42s., and Pumpherton from 5 to 5½.

Mining Correspondence.

BRITISH MINES.

BEDFORD UNITED.—H. Trezise, July 22: North Lode: In the 133 east good progress is being made in driving the end; the lode is of a promising character, and producing good saving work. —McCallan's Shaft, Bridge Lode: On the 75 east the lode is taken down close to the end; it is composed of capel, muddle, and some good yellow ore. In the 75 west the lode is not taken down, the ground is very favourable for progress. The lode in the 62 west is cut into, but not cut through. It has a very kindly appearance indeed, composed of capel, muddle, and rich black ore, and the channel of ground is everything that can be desired for the production of good ore. Two stopes behind the 62 west are worth 5L and 6L per fathom each. In the 62 east the lode is 3 ft. wide, and very promising. In the 42 east the lode is much the same as it has been for some time past. There are two stopes in the back of the 42 worth 12L and 6L per fathom each, and one in the bottom worth 7L per fathom. The tribute pitches continue to yield a fair quantity of ore.

CARN CAMBORNE.—W. C. Vivian, July 24: There is no decided improvement in the 105, west of cross-cut on the first south lode, but the character of the rock has become more favourable than it has hitherto been. In the continuing of the 105 cross-cut south no lode has yet been intersected.

CATHEDRAL CONSOLS.—S. Davey, jun., July 24: Setting Report: The 84 cross-cut to drive south by eight men and four boys, at 14L per fathom; driven last month 3 fms. 3 ft. 6 in., whole distance driven 19 fms. Good progress is being made towards reaching the great south lode. The 84 to drive west at 7L per fathom; lode unproductive. We have put four of the men from the western end to drive west on No. 2 lode cut in the south cross-cut, which is 2 ft. wide, and producing good stones of copper; this we consider a fair speculation, and should be tried.

CRIBBING.—H. Hotchkiss, July 23: Meadow Shaft: The 133 yard level, east of cross-cut, is without change; blende showing in the lode near the footwall. West of cross-cut the lode in the end is 2 ft. wide, and letting out a little water. Against the hanging-wall we continue to find strings of lead ore and blende; fair progress is being made in these ends.

OWM DWYFOR AND BRYNARIAN (Brynarian Mine).—J. Davies, July 24: There is a little improvement in the lode this week, but the ground is hard.

D'EERBY MOUNTAIN.—William Sandos, July 23: The work of timbering the new shaft is going on satisfactorily, all the dividers and sleepers are fixed in their places down to 6 fms. below the No. 4, and this part of the shaft is now ready to receive the plank, &c., for grinding the kibble; but we purpose to go on fixing the sleepers and dividers down to No. 6, and finish this part of the work first, and then turn to the planking, which we can finish in four or five days. The men cutting the piece of ground in the south end of the shaft above No. 6 are getting on very well, and will finish the job before the others reach that point fixing the timber.

DEVON FRIENDSHIP.—F. R. W. Daw, July 24: The 42 end, east of Bennett's engine-shaft, is set to two men, at 2L per fathom; the lode is 3 ft. wide, and worth 7L per fathom. The cross-cut south of the 42 end is set to two men, at 2L per fathom. The 42 end, east of Bennett's shaft, is set to two men, at 2L per fathom; the lode is 3 ft. wide, and worth 10L per fathom. The 1 stope in the back of the 30 west, on Bennett's shaft, is set to two men, at 2L per fathom; the lode is 4 ft. wide, and worth 8L per fathom. The 2 stope in the back of this level is set to two men, at 1L 3s. per fathom; the lode is 3 ft. 6 in. wide, and worth 7L per fathom. Put two men to stope west of rise in the back of the 12 at 1L 15s. per fathom; the lode is 3 ft. wide, and worth about 4L per fathom. The end driving east of ladder winze is set to two men, at 4L per fathom; the lode is 10 ft. wide, and worth 8L per fathom. The stope in the bottom of this level is set to two men, at 1L 15s. per fathom. The end driving west of ladder winze is set to two men, at 2L 15s. per fathom; the lode is 2 ft. 6 in. wide, and worth 7L per fathom. Put two men to stope in the bottom of this level at 1L 15s. per fathom; the lode is 3 ft. wide, and worth 7L per fathom. The machinery at surface continues to work well.

DEVON GREAT CONSOLS.—I. Richards, July 24: North Lode: Satisfactory progress is being made in cutting down the adit shaft, and the mine is of a very congenial character for the production of mineral. —Wheal Emma, No. 1 Shaft, New South Lode: In Vigor's winze, sinking below the 205 fm. level west, the lode continues to yield 2 tons of copper ore and 5 tons of muddle per fathom.

—Railway Shaft: There is little alteration in the nature of the ground in the Railway shaft sinking below the 205. In Richards' cross-cut south, at the 60 east, the ground continues of the same congenial character as last reported. —Watson's: In the 112, west of the engine-shaft, the lode maintains its size—5 ft. wide—and continues to yield 2 tons of copper and muddle ore per fathom. In Dunstan's winze, sinking below the 112, the lode is 3 ft. wide, of a promising character, and yielding a little saving work of copper and muddle ore. The ground in the western shaft, sinking below the 32, continues favourable for exploration, and is of a congenial nature for the production of mineral. The sinking of the midway shaft below the 20 is temporarily suspended until the 32 shall have reached the point immediately under it, when it is intended to communicate these two points by rising in the back of the 32. In the 32, east of the western shaft, the lode is 2½ ft. wide, composed of capel and quartz, with peach, muddle, and a little copper ore.

DEVON GREAT UNITED.—Isaac Rencarrow, July 24: In the 120, east of Willford's shaft, the lode maintains its size—from 5 ft. to 6 ft. wide, and generally very promising character, and continues to yield some good quality copper and muddle ore. In the 120, west of Willford's shaft, the lode is 3 ft. wide, is presenting an improved appearance, and is now yielding some saving work for copper and muddle ore. In the 104, west of Willford's shaft, the lode is 1½ ft. wide, composed of capel and quartz, with muddle and a little good quality copper ore. The other points of operation throughout the mine are without important alteration.

DUCHY PERU.—R. and J. Rencarrow, July 22: Since our report of the 5th inst. the shaftmen have renovated and improved our pitwork, and while this was being done the engine-men have done the same to the pumping-engine; the water is again cleared, and the men driving west on the course of the lode, where we have a vein which will greatly facilitate the progress in driving so as to reach Nos. 1 and 2 north and south lead lodes where we hope to meet with

an improvement. The winze sinking below the 70, west of engine-shaft, course of the lode, is poor at present, which we hope is only temporary. We think the chances are good of meeting with silver-lead both north and south, this winze, which is in virgin ground. The 70 west, on the course of the lode, has rather improved for progress, and the lode presents a very promising appearance to-day, all the end producing saving work for lead, with every indication of a further improvement. The pitches at the various levels are producing blende, and we are in a forward state with two good parcels for our next bling, on Aug. 1. Surface operations going on with regularity, and chulney in good order.

EAST BLUE HILLS.—S. Bennett, W. K. Mitchell, July 22: The lode 10 fm. level, in opening out for pit, is found from 5 ft. to 6 ft. wide, of a promising appearance, and worth from 10L to 12L per fathom. At present producing the best tinstuff going east. In the course of a few days we are to get a small portable engine at work for stamping purposes, so that in the course of another month we hope to get another parcel of tin for sale.

EAST WHEEL LOVELL.—T. Quentrell, July 23: There is no particular change to notice since the meeting, except that the lode in the engine contains more tin than it did.

GAWTON.—G. Rowe, July 19: The lode in the 117 east is showing an appearance as we get off from the cross-course, it being full 5 ft. wide, composed of strong capel and arsenical muddle, and yielding splendid stones of copper ore. The lode in the 95 east is also showing an improved appearance both size and value, yielding 10 tons of arsenical muddle per fathom, with stones of ore. All the stopes throughout the mine continue to yield the quantities of arsenical muddle and ore.

—Moses Bawden, July 23: Setting Report: The 117 to drive east of engine-shaft by four men, at 12L per fathom; the part of the lode carried is 5 ft. of a most promising character. We have just passed through a small course in this drive, and there is a decided improvement in the strata some good stones of copper ore and arsenical muddle are being produced the lode. The 95 to drive east by four men, at 12L per fathom; the part of the lode carried is improved both in size and value, over 5 ft. wide, and yielding 10 tons of rich arsenical muddle per fathom, and some good stones of ore. This is a very important level, as we have whole ground from here to the surface on this part of the lode. The 70 to drive east of engine-shaft by two men, at 11L per fathom, yielding 8 tons of arsenical muddle per fathom. The drive east of the engine-shaft by four men, at 6L per fathom, yielding 6 tons of muddle per fathom. No. 1 stope, in the back of the 117 east, by four men, at 6L per fathom. No. 2 stope, in the back of the 117 east, by four men, at 6L per fathom. No. 3 stope, in the back of the 117 east, by two men, at 5L per fathom.

The stope in the back of the 82 east by four men, at 5L per fathom. The stope in the back of the 70 east by two men, at 5L per fathom. The stope in the back of the 70 west by four men, at 4L per fathom. The stopes are each yielding an average about 8 tons of arsenical muddle per fathom, and some low copper ore. We shall sample on Friday next about 70 tons of copper ore, and which there will be about 10 tons of a better class than we have for some time had. When I inspected the underground workings on Monday last I considered that there was a decided improvement in the mine, especially so in the east, which is opening up some profitable ground. It will be remembered that when we resumed the driving of this level a few months since that the was very poor, but looking at its present value and indications we may expect still greater improvement in the next few fathoms driving.

GOODEVERE.—R. Knott, July 23: Since my report of last week we commenced a winze in the bottom of the shallow adit, and I am pleased to report that we have a good lode at this point holding down. It will be remembered that a shaft has been sunk on the course of this lode about 18 fms. and at this point a communication has been effected with the above level. This being the deepest point yet attained in the mine I am to continue the sinking of this winze during the dry season. The lode, as far as it is, is from 3 to 4 ft. in width, and producing good work, and if it continues as at present, which I have no doubt it will, it must be object to drive on the deep adit, which will unwater this lode to the depth over 50 fms. It will thus be seen that our present prospects are most cheering, seeing that you have sold some hundreds of pounds worth of tin from shallow workings, which up to the present I consider only surface scratch. It is not too much to say you have a very valuable property, and I strongly recommend its being prosecuted more vigorously.

GREAT HOLWAY.—W. J. Harris, July 24: Level Engine-Shaft: No. 1, in the back of the 60 fm. level is worth 2 tons of lead and 1½ ton blende per fathom. No. 2 pitch in the back is producing 2½ tons of lead and 2 tons of blende, fathom, and promising for an improvement. In No. 3 pitch in the bottom level east is yielding 10 cwt. lead and 1½ ton blende per fathom. No. 4, in the back of this level east is worth 10 cwt. of lead and 1½ ton blende per fathom. No. 5 pitch has slightly improved, and now worth 1 ton of lead and 1½ ton blende per fathom. No. 7 pitch in the back of this level west is producing 10 cwt. of lead and 1½ ton blende per fathom. No. 8 pitch in the bottom level has much improved for blende, now yielding 10 cwt. of lead and 1½ ton blende per fathom. No. 9 pitch in the back of this level is producing 10 cwt. of lead and 1½ ton blende per fathom. —Brammock Shaft: 1 pitch in the 50 fm. level east is worth 13 cwt. of lead and 1 ton of blende per fathom. No. 2 pitch is producing 10 cwt. of lead and 1½ ton blende per fathom. No. 3 pitch is yielding fully 10 cwt. of lead and 1½ ton of blende per fathom. Office Shaft: The pitch in the back of the 60 west is producing 10 cwt. of lead and 1½ ton of blende per fathom. The machinery throughout the mine working well and in good condition. The ground is solid to-day read 3L 11s. 6d. per ton. To-morrow we purpose sampling other 40 tons of tin. Shall sell a parcel of lead next week.

GREEN HURTH.—J. Polglais, July 17: The sinking of Swan shaft is on favourably. The vein in the 44, north of Swan shaft, is worth 3 tons per fathom. No. 1 stope is worth 2 tons per fathom. No. 2 stope is worth 2 tons per fathom. No. 3 stope is worth 2½ tons per fathom. No. 4 stope is worth 1 ton per fathom. No. 5 stope is worth 2 tons per fathom. No. 6 stope is worth 1 ton per fathom. No. 7 stope, back of Standage, is worth 5 tons per fathom. We have reached the top of the crushed ground in back of trial drift, 30 level, and are now sinking it. We hope soon to open a stope in this direction. There is a large vein at level east producing occasionally stones of lead. We are also sinking level on No. 3, progress slow. Dressing going on well. We have not win in Swan shaft. On Friday last, our measuring day, the vein was rich. When the win sill was cut it off the lead; however, the vein is making again, and producing a little lead. We see similar changes in the even in the thin plate beds. The ground is favourable for sinking, and progress is being made. The improvement in the 44 north is very encouraging. **HEALEYFIELD.**—H. Trezise, July 18: We are still busy in the Winze shaft placing in divisions, brattice, &c. We have had a great deal more here than we expected. Owing to the rising of the water it has softened alternate beds of shale, which require trimming and timbering. We are keeping everything forward with the utmost dispatch, and will make a start in the sinking as soon as possible. There is no change to notice in the underground workings. We are clearing the debris away for the new race to take. **KIT HILL GREAT CONSOLS.**—I. Richards, July 24: In the Tunnel the ground is still favourable for exploration, and branches of capel and blende continue to be intersected; the distance driven during the past week is 3½ ft. —North Shaft: In the 100 the trip-plat is in a forward state of completion and everything will be ready for sinking below this level by the end of this week when every exertion will be made to get the shaft to the depth of the 70 level as quickly as possible. There has been little done east or west since report, the men being fully engaged in cutting pit and other work preparatory to sinking the shaft. The 88 west continues of a very promising character, containing a small quantity of tin ore.

LEADHILL.—Arthur Waters, July 24: Since my general report of the 24th before last the 100, south of Jeffrey's shaft, has increased in value to 4½ to 5L per fathom, and the 100, south of Jeffrey's shaft, has increased in value to 4½ to 5L per fathom, and the winze below said adit is yielding 10 cwt. of lead ore per fathom—on at Brown's lode. **LLANGELYNN.**—Owen Evans, July 23: We have started to drive south from the winze in the No. 2 level, and find the lode very strong both ends, and yielding very good ore in easy ground. The graphite in the No. 3 level is also looking well. I think our prospects here are really encouraging. The mountain is fully of rich lodes, which I consider will pay for opening on, even at the present low prices of lead and blende. **MELLANEAR.**—John Gilbert, July 23: The winze sinking below the 31s. of Gundry's shaft, on the new lode, is yielding rich stones of muddle and saving work for copper ore, but not sufficient to value. There is no change the 70 cross-cut, north of the main lode; the ground is still mineralised, favourable for driving. The lode in the 100, west of Gundry's shaft, is wide, and yielding 1 ton of copper ore per fathom. In the 117, west of the lode is 5 ft. wide, and yielding 1½ ton of copper ore per fathom and low-produce tinstuff. In the 119, east of shaft, the lode is 2½ ft. wide, yielding 1½ ton of copper ore per fathom, and rich stones of tin ore. In the 120, east of shaft, the lode is 3 ft. wide, and yielding some saving work for copper ore, but still disordered by cross branches of spar. The rise in the back of this level is yielding 2 tons of ore per fathom. In the 120, west of the lode is 4 ft. wide, and yielding 2 tons of ore per fathom; we have met a large stream of water in this end, which is draining the level above, and the lode is also easier for driving. The lode in Gundry's shaft, sinking below, is 1

man to mining. But those mines that have been opened, and where genuine work has been done, have shown very good results, and appear likely to continue remunerative, and to improve in depth. Our local gold mines, 25 miles from Adelaide, have taken a turn for the better; as the sinking goes deeper the reef is improving both in size and productiveness, and the last crushing of nearly 700 tons gave 300 ozs. of pure gold. A richer trial on the same reef recently gave from a trial crushing of about 20 tons 8½ ozs. to the ton. I have myself lately acquired what is likely to prove a valuable mineral property; it is a deposit of talc of excellent quality, and occurring in plates of very large size. A box of samples, which should have arrived 10 days ago, has not yet come to hand, owing to the carelessness of a person who had it in charge; but I enclose a small fragment, which shows the quality to be first-class. I have secured the reef for a mile in length, and hope soon to be able to send a good report of it. The locality is 250 miles from Adelaide, but within 120 miles of the railway, and close to a public road. Carriage to a shipping port would be about 47. per ton.

Our railway system is progressing; we are now engaged in the construction of a line which will connect Adelaide with Melbourne and Sydney, and which is to be completed by about the end of 1866. Another line, which may be considered the commencement from the north of the Transcontinental line, is being commenced from Port Darwin to Pine Creek, in the Northern Territory, while at the same time a further extension northward from the present terminus at Hergott Springs, 430 miles north of Adelaide, is about to be constructed, over 900,000ft. being available for the section of about 180 miles in length. But there are those who think that no time should be lost in pushing forward the railway right across the Continent. Mr. John G. Pitcher, the manager of the Town and Country Bank, Adelaide, whose name is not unknown in London in connection with a grand scheme for forming the Transcontinental Railway, has just written a very good letter to the Register newspaper, headed, "The Real Resources of South Australia." He alludes to the low price of our chief staple (wheat), and to the unfavourable prospects of wheat-growing for the future. He speaks of the colony as being pre-eminently a pastoral country, for the growth of wool, beef and mutton, and the breeding of horses, and alluding to the vast tracts of unoccupied country in the interior he urges the importance of pushing forward the Transcontinental Railway without delay. He proposes to borrow the necessary funds (say) 7,000,000ft., and throw open the contract for constructing the line to the whole world. It might be made within five years, and once traversed by the iron horse the country would soon far more than return the interest on the cost of the railway. Mr. Pitcher goes on to say that at present our South Australian stock owners possess 6,000,000 sheep, 300,000 cattle, and export annually to the value of 2,000,000ft.; but if the country were opened up by means of the railway we should in a few years show a census of 30,000,000 sheep and 3,000,000 cattle, and an export of 15,000,000ft. The construction of the railway would be the means of introducing cheap labour from India and China, and our immense territory could be properly developed. I commend the suggestion to the consideration of English capitalists. The Duke of Manchester has just arrived "to take a look around." He is convinced of our colony as a good field for investment.

Adelaide, June 16. J. B. AUSTIN.

THE LATE MINING RECORD OFFICE.

In noticing in last week's *Mining Journal* the admirable manner in which the Mineral Statistics and Summaries of the Government Inspectors of Mines for 1863 had been issued, some remarks were made with reference to the officers of the late Mining Record Office, to which exception is naturally taken by Mr. Robert Hunt, F.R.S., and as that gentleman's urbanity and energy have never been for a moment doubted by those who have had the advantage of his acquaintance, we have much pleasure in publishing the subjoined very complete refutation from Sir Andrew Ramsay, whose statements must be accepted as conclusive:—

Beaumaris, July 22.

SIR,—The statement which appears in last week's *Mining Journal* referring to the work of Mr. Robert Hunt is so contrary to the truth (doubtless owing to some misconception on the part of the writer) that I must request that you will insert in a prominent place my contradiction of it. Mr. Robert Hunt and myself having joined the establishment about the same time, and I having succeeded Sir Roderick Murchison as Director-General, there is no one who can speak with the same knowledge and authority as I can on the subject of Mr. Hunt's attention to his duties.

I feel it is only just to Mr. Hunt to state that no man ever gave more unremitting attention to the duties of his office than he did. He originated the Mineral Statistics under considerable difficulties, and most perseveringly carried the collection of them forward up to the time (about two years since) when the Government thought it advisable to transfer the business of the Mining Record Office to the Home Office. In addition to the labours of Mr. Hunt in the Mineral Statistics, it must not be forgotten that he has collected a valuable series of mining plans and sections, on which duty he spent several months in each year in the several mining districts of this country.

ANDREW RAMSAY,
Late Director-General of the Geological Survey of the United Kingdom and of the Museum of Practical Geology.

Similar communications have been received from Dr. Archibald Geikie, the present Director-General of the Geological Survey, who expresses surprise among other things at the idea of bringing a charge of such a kind against Mr. Hunt, of all men, who has worn himself out in the public service! and adds that no one knows more certainly than he (Dr. Geikie) how untiring his labours for the department have been. He is sure that every old friend of Mr. Hunt's will sympathise deeply with him that at the end of his long and honourable career anyone should dare to think of him and his work in this way. Prof. Warington Smyth writes that he, as an old colleague, feels it his duty to contradict the base accusation levelled at Mr. Hunt in the *Mining Journal*. These testimonies in Mr. Hunt's favour might be largely increased, but the above—than which nothing could be stronger—will suffice. Mr. Hunt has been an esteemed correspondent of the *Mining Journal* for considerably more than 30 years, but an examination of his numerous contributions will show to how large an extent they have been with a view to encourage the supply of more complete statistical details to be arranged and published by the department to which he belonged, and for the benefit of the entire mining community.

TOURISTS' TRAVEL TALK.

—Although it is scarcely safe to pretend that an ordinary Englishman can learn "French in a Fortnight," or "German at Sight," the importance of being able to enquire one's way or ask a simple question in the language of a foreign country which one may be visiting can scarcely be over estimated. The pretty little "Feller" has hitherto been one of the most compact little trilogists for the pocket or portmanteau; but in *Tourists' Travel Talk*—one of Mr. Percy Lindley's Penny Holiday Handbooks. London: The Author, 125, Fleet-street—just issued, an English, French and German Every Day Vocabulary is supplied, which many will appreciate who have no intention of studying either language by its aid. The words and phrases are well selected and calculated to answer the purpose for which it is intended.

RAILWAY AND GENERAL MARKETS.

—Referring to the course of business done to-day during official hours (11 to 3) Mr. Ferdinand R. Kirk Birchallane, writes:—*Opening:* American railways are again buoyant, the principal advance being in Lake Shore, Central Pacific, and Illinois Central. Erie, 14½ to 14½; Reading, 13¼ to 13¼; Atlantic, Erie, 35½ to 36; Lake Shore, 82½ to 82½; Louisville, 32½ to 32½. The 5½ Berwick dividend does not improve, the price of the stock now below 181. Truck Seconds and Thirds are ¼ better. Mining shares meet with fair enquiry. Bratsberg, 1½ to 1½; Ca laio Bis, 4½ to 4½; Chile, 3s. to 4s.; East Wheel River, 3½ to 4; Old Shepherds, 3½ to 4; Orango, 3½ to 4; Orita, 3½ to 4; Oscar Gold, 3½ to 4; Edison Boryo, 11s. to 12s.; Mysore Gold, 3½ to 4; Leadhills, 1½ to 1½; Montana, 1½ to 2; Australian, 1½ to 2.—*Closing:* The announcement—partly anticipated—that no August dividend would be paid by the Central Pacific, sent the shares down from 44½ to 43½; now 43½ to 44. Home railways are strong. Great Easterns have advanced 1½; Berwicks, Brighton, A. and Great Western being from ½ to ¾ better. Kapanga, 2s. 6d. to 3s. 6d.; Port Phillip, 1s. 6d. to 2s. 6d.; New Foston, 2s. to 3s.; Van, 3½ to 4½.

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The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JULY 25, 1884.

IRON.	£ s. d.	£ s. d.	TIN.	£ s. d.	£ s. d.
Fig. 600, f.o.b., Clyde...	2 1 3/4	—	English, ingot, f.o.b....	85 0 0	—
" Scotch, all No. 1...	2 2 0	—	" bars...	85 0 0	—
" Bars Welsh, f.o.b. Wales...	4 17 6	—	" refined...	87 0 0	—
" " in London...	5 2 6	—	Australian...	82 5 0	82 7 6
" Stafford...	6 7 6	—	Banco...	nom.	—
" In Tyne or Tees...	5 0 0	—	Straits...	82 5 0	82 7 6
" Swedish, London...	9 0 0	9 5 0	COPPER.		
" Nails, Welsh, at works...	4 17 6	—	Tough cake and ingot...	58 0 0	59 0 0
" Sheets, Staff., in London...	7 5 3	7 10 0	Best selected...	59 0 0	60 0 0
" Plates, ship, in London...	7 10 0	8 0 0	Sheets and sheathing...	63 0 0	67 0 0
" Hoops, Staff., in London...	6 7 6	6 10 0	Flat bottoms...	65 0 0	70 0 0
" Nail rods, Staff., in Lon...	6 7 6	—	Galvanised...	63 10 0	61 10 0
English spring...	12 0 0	12 0 0	Burra, or P.O....	60 0 0	60 10 0
" cast...	13 0 0	14 0 0	Other brands...	nom.	58 10 0
" Swedish, keg...	13 0 0	14 0 0	Chili bars, g.o.b....	53 10 0	—
" fag. hain...	13 0 0	14 0 0	QUICKSILVER.		
" Nails at works...	4 12 6	5 0 0	Flasks, 75 lbs., war...	5 6 3	—
" Light, at works...	5 12 6	6 12 6	PHOSPHOR BRONZE.		
LEAD.			Alloys I. and II...	£112 0 0	—
English pig, common...	10 15 0	11 0 0	" V. and VII...	113 0 0	—
" " L.B....	10 17 6	11 2 6	" VI. and VIII...	113 0 0	—
" " W.B....	11 2 6	11 10 0	" XI. Duro A, Duro B...	110 0 0	—
" sheet and bar...	11 5 0	11 10 0	BRASS.		
" pipe...	11 5 0	—	Wire...	63 4 0	—
" red...	13 5 0	—	Tubes...	8 1/2	—
" white...	14 10 0	15 10 0	Sheets...	8 1/2	—
" patent shot...	13 10 0	—	Yel. met. sheath. & sheets...	5 1/2	—
Spanish...	10 10 0	—	Tin-plates...	per box	—
NICKEL.			Charcoal, 1st quality...	1 1 0	2 0
Metal per cwt...	—	—	" 2nd quality...	0 13 0	1 0 0
Ore 10 percent. per ton...	—	—	Coke, 1st quality...	0 18 0	0 16 6
SPELTER.			" 2nd quality...	0 15 0	0 16 0
Silesian ordinary brands...	5 0 14	10 0	Black...	per ton	15 0 0
" special brands...	14 10 0	15 0	Canada, Staff. or Gla...	12 0 0	—
English Swansons...	15 10 0	—	at Liverpool...	—	—
Sheetal...	17 15 0	—	Black Taggers, 450 of...	30 0 0	—
			14 x 10...	—	—

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; 1X 6s. per box more than 10 quoted above, and add 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—Our markets continue without any fresh feature, and there is the same characteristic of utter stagnation which we have had to report for several weeks past still existing. All hopes of a revival shortly setting in seem to have now been entirely abandoned, for it is considered that after such a lengthened period of stagnation, when business in some places has been brought almost to a complete standstill, and everywhere it is extremely limited, that time alone can bring about a recovery, and that any resuscitation will be of gradual and steady character, and not suddenly burst upon the markets unforeseen and unexpected. Even the hopes of those who look for a gradual and slow recovery shortly arising are frustrated by existing events. It is not thought likely that business can permanently improve while there is such a lack of confidence in the future, while there is such hesitation evinced in purchasing beyond the most urgent requirements of the day, when people are so much impoverished by their recent losses, when one branch of the Legislature is acting antagonistically to the other, when political agitations and demonstrations are being held in all parts of the country, when foreign politics are far from promising, when the cholera in France has brought business in that country to a complete standstill, and other adverse circumstances prove injurious to the whole of the continental trade; when advices from America report that the financial difficulties there are so serious that not even the best of harvests can do much towards improving trade in that country; when we find America, the country, in ordinary times, so noted for pushing trade and all kinds of enterprise, for extending and opening up railways, is now doing next to nothing, and traders crippled, if not ruined, by recent disasters, are even experiencing the utmost difficulty in meeting their present engagements, and, therefore, unable to enter into any further negotiations; when we consider that in India there is a paucity of business, and with the various colonies transactions are of the most limited character, then it seems that the tide of prosperity is still rolling back, and that the chances of a restoration, even of the most limited nature, become more and more remote. Fortunately, the Bank of Bombay has, during the week, further reduced its rate of discount, and this may, perhaps, tend to slightly stimulate business in that market and engender more confidence, although we cannot look for any noteworthy increase in the Indian demand, as prices out there are said to be much lower for many metals even than the very unremunerative prices being realised in this country. The cheapness of money here will probably help to ward off many a difficulty; but this, just now, utterly fails to stimulate business in any of its branches, and for all the principal metals prices continue to crumble away, thereby further increasing the losses of many a holder. The favourable features which existed a month or so ago, and gave the only hope of better times, have sunk into oblivion, and no longer bear the slightest influence to encourage the desponding trader, and there seems nothing before us but a dark, uncertain future, which, it is to be hoped, may not terminate in any serious and prolonged crisis.

COPPER.—The amount of business doing in copper is of a decidedly limited character, and while sellers do not show much disposition to make sales at the current low and unremunerative prices, buyers are still less disposed to effect purchases unless some concessions be made in prices. Hence the market assumes a steady appearance, tending slightly in favour of buyers. The most striking feature in the market is that prices are as low as they have ever been known before, and yet buyers cannot be tempted to come forward and effect contracts. Here we have the cause of the indisposition on the part of holders to press sales, but at the same time whilst they are loth to push sales, and thus further weaken the market, they are quite ready to freely effect sales at current rates, unprofitable as they are known to be, rather than run any further risk of the market. Another striking feature just now is the question of stocks.

For the last few years public stocks have been rapidly diminishing, and although the quantity now held is decidedly large, yet it is considerably less than what we have been accustomed to of late years, and it argues unfavourably for the market, when neither low prices nor reduced stocks are able in any way to stimulate even the speculative demand. In manufactured business is kept most limited, shipping orders still being very scarce, and advices from India report lower prices than those ruling here. What orders are offering have to be transacted at the very lowest quotations, and many of them come at limits below what the smelters are disposed to accept. In fact all round business is done seems to be of an entirely hand-to-mouth character, and further appears to be of a most unremunerative nature to both buyers and sellers.

IRON.—Undisturbed quietude continues to reign over this market, and prices remain fairly steady. There is no good feature in any branch of the trade, and general grumbling and complaining of the scarcity of business is a very common and usual occurrence. Manufactured and the raw material, English and foreign iron of all description, are in equally depressed demand, and it is difficult to say for which kind of iron there is now the better enquiry. Short time at the various works has been a very usual characteristic for several months past, but that time is made still shorter; and where before there could be reckoned so many hours per day short there can now be reckoned so many days per week. The actual turn-over of business is more limited, and that which is done is not only transacted at ruinously low limits, but is merely accepted, and sometimes even keenly competed for, that manufacturers may not have to bring their mills to a complete standstill. The advices from Scotland which we give below are not at all satisfactory. Evidently the demand does not require the present number of furnaces in blast, and stocks must be brought lower if higher prices are to be realised.

It is true that the number in blast does compare favourably with those in blast at the corresponding period of a few previous years, and that public stocks are lighter than they have recently been; but they are still too heavy, and greatly depress the market; and now the present demand does not warrant higher prices, it follows that the only way to obtain more remunerative rates is

by reducing the production, and which can only be done by putting more furnaces out of blast. After the Scotch vacation the Glasgow warrant market opened on Tuesday morning with somewhat of a holiday appearance, and a limited business only was done for cash at 41s. 2 1/2d. to 41s. 3 1/2d.; and on Wednesday transactions were few, and the market kept steady at 41s. 3d. Yesterday there was very little doing, and the market was nominally unchanged as regards prices, the quotation being 41s. 3 1/2d., and to-day business has again been limited, the closing figure being 41s. 3 1/2d. The shipments last week were only 8706 tons, against 12,436 tons for the corresponding week of last year, being a decrease of 3730 tons, and which makes the total shipments for the whole of this year 314,839 tons, against 353,423 tons for the same time of last year, and now amounts to 558,036 tons, against 558,126 tons last week. The imports of Middleborough pig-iron into Grangemouth last week were 4145 tons, against 3940 tons for the same week of last year, being an increase of 205 tons, and which makes a total decrease for the whole of this year compared with last of 4110 tons.

The Middleborough market remains extremely flat, there being a marked slackness in the demand. Second-hand parcels of No. 3 are offering at 36s. 9d., and makers quote 37s., and the price asked for No. 4 forge is 38s. 9d. In the public stock there is a reduction of 650 tons, and which now amounts to 58,228 tons. The shipments last week were about 18,000 tons, and the deliveries for the whole month have amounted to 52,269 tons. There is a slightly better export demand for manufactured, but, on the whole, that branch of the trade is still very dull, ship-plates are quoted at 5 1/2s., angles at 4 1/2s., boiler-plates at 5 1/2s., and sheets at 6 1/2s. per ton. There has been very little business doing at Wolverhampton, and prices tend in favour of buyers, who hold off the market, and place only the most limited orders, owing to the ironmasters notice for a reduction in wages. Common bars can be bought at 5 1/2s. 6d., and list bars are quoted at 7 1/2s., common hoops are held for 8 1/2s. to 8 5/8s., and sheets rule at 6 1/2s., boiler plates being quoted at 8 1/2s., all-mine pigs rule at 5 1/2s. 6d., hematites at 5 1/2s., part mines at 4 1/2s. 6d., and cinder pigs at 3s. to 3 1/2s. 6d. With the exception of plates, which are in fair demand at Birmingham for engineering purposes, transactions continue very limited, and are chiefly confined to small parcels and for medium quantities. A few sales of pigs have been made at lowest current rates, but the whole market is very much unsettled by the agitation among the ironworks against the proposed reduction of wages.

TIN.—The amount of business transacted during the past week has not been large, and prices have remained fairly steady. The future of the market is very uncertain, and because the features of a favourable nature have now for a long time existed and yet have failed to produce any improvement in prices, confidence is being lost, and they are no longer expected to produce the desired effect. General trade is so deplorably bad, and there are so many adverse influences at work of one kind and another, that the future is viewed with more or less anxiety, and it requires something more than the occasional "bull" contracts, every now and again made by operators, to give support to the market, to encourage buying, to attract speculators, and to establish confidence. Prices are low compared with those ruling during the past few years, and when taken in conjunction with the diminished stocks, make the market at first sight appear very favourable; but then it is remembered that in former times of depression prices were very much lower than they are now, and further it is thought that supplies can be maintained with a good profit at figures considerably below current rates, so that serious doubts are entertained whether prices will be upheld much longer, even at ruling quotations. When almost every other description of commerce is selling, if not at a positive loss, certainly with a bare margin of profit, it is not thought likely that the price of tin can permanently be maintained, but this will depend on the future action of operators. They have a difficult task before them ere they can establish any advance, and the advices this week from Holland will not encourage them in buying, as prices there are again reported lower.

STEEL.—There is very little business doing; prices all round remain steady, and there is no change whatever to report in any branch of the trade.

TIN-PLATES.—The demand is quiet, and prices for both coles and charcoals are steady.

SPELTER unaltered.

LEAD is in slightly better demand, and has improved 2s. 6d. per ton.

QUICKSILVER.—The importers of Spanish on Tuesday accepted 55. 5s., a reduction which gave rise to a very large business; but they have since raised the price to 55. 6s. 3d., at which they hold firmly.

Although many dealers are out of town the MINING SHARE MARKET has been rather more active this week for one or two tin mines which have advanced upon late quotations; but on the whole there has been little change for the better, and prices remain merely nominal. The mines dealt in principally have been Dolcoath at an advance; East Pool, East Blue Hills, Wheal Agar, West Kitty, West Frances, Wheal Crebor, New Caradon, New West Caradon, Prince of Wales, Bratsberg, and a few others.

Tin has been less firm, but there has not been any change in the standard for ore since June 17. In shares rather more business has been done, without much change in prices. Carn Breas are 24 to 25; Cook's Kitchen, 9 to 10. Dolcoaths, after declining to 71, leave off 72 to 74. East Pool, 42 to 43; Killifreth, 5-16ths to 7-16ths; New Kitty, 1 to 1 1/4; South Condurrow, 8 1/2 to 9 1/2; Tincroft, 5 to 5 1/2; Treavannan, 1 1/2 to 2; West Basset, 3 to 3 1/2; West Frances, 5 to 5 1/2; West Polbreen, 1 1/2 to 2; West Poldice, 1 1/2 to 2; Wheal Basset, 2 1/2 to 3; Wheal Agar, 1 1/2 to 1 3/4; Wheal Grenville, 5 1/2 to 6; Wheal Jane, 1 1/2 to 1 3/4; Wheal Uny, 1 1/2 to 1 3/4. At the East Lovell meeting, on July 15, a call of 15. 5s. per share was made, the accounts for eight months, to July 5, showing a debit balance of 2300L. The tin sold (4 tons 17 cwt.) realised 212L. The agent thinks that with the call now made "the mine will be in a good position."

South Frances, 7 1/2 to 8; the 226 end, east of Pascoe's shaft, has considerably improved, and is worth 25L. per fathom. A winze commenced in the bottom of the 226 west, where the lode is worth 40L. per fathom. East Blue Hills have become in good demand, and leave off 4s. to 6s. The lode in the shaft has greatly improved, and bids fair, it is said, to rival its neighbour, West Kitty. For some time past the shares have been nearly unsaleable. Polbreen, 1 1/2 to 2; Mounts Bay, 2s. to 3s.; Phoenix, 2 to 2 1/2; South Crofty, 2 1/2 to 3; Wheal Kitty (St. Agnes), 1 1/2 to 2; Treavannan, 1 1/2 to 2; West Kitty now so firm at 10 1/2 to 11 1/2; at the meeting next week a dividend of 10s. per share, or 3000L. is anticipated. The lode in the 72 east is reported worth 20L. per fathom. The 60, east of rise, 15L. per fathom. Wheal Peevor, 1 1/2 to 2; the agent thinks the 48 cross-cut north is nearing the lode. The lode driving west of No. 1 winze in the 16 is opening out good tribute ground.

COPPER has been quiet, and very little doing in copper mines; quotations remain about the same, and are mostly nominal. Bedford United are quoted 1 1/2 to 1 3/4; Devon Great Consols, 2 1/2 to 2 3/4; Mellanear, 1 1/2 to 2; New West Caradon, 1 1/2 to 2; New Caradon, 1 1/2 to 2. Prince of Wales, 1 1/2 to 2; this mine has further improved in the 102 east, and the tin lode in the 45 is worth 20L. per fathom. West Seton, 4 to 4 1/2; West Crebor, 1s. to 2s. Wheal Crebor, 1 1/2 to 1 3/4; there is no particular change here. New Cook's Kitchen, 1 1/2 to 2; Gunnislake (Clitters), 1 1/2 to 2; South Caradon, 1 1/2 to 2.

LEAD is fully 2s. 6d. per ton higher, but at present there is no change in shares, which remain at nominal prices. Vans are quoted 1 to 1 1/2; Great Laxey, 8 1/2 to 9 1/2; Roman Gravel has been firmer at 2 1/2 to 3; New Langford, 1 1/2 to 2; Old Shepherds, 1 1/2 to 2; East Rose, 1 1/2 to 2. D'Eresby Mountain, 1 1/2 to 2; a meeting has been called, the object of which is explained elsewhere. Leadhills, 1 1/2 to 1 3/4; the points referred to last week have further improved, and a winze going down in whole ground below Grippes' adit is coming into good ore. Weardale, 1 1/2 to 1 3/4.

FOREIGN MINES.—The demand for shares of this class has been decidedly better, and in some cases higher prices have been established; though in many instances prices are still quite nominal. Akankoo are quoted 7-16ths to 9-16ths; Alamillos, 1 1/2 to 1 3/4; Almada and Tinto, 3-16ths to 5-16ths; Birdseye, 1 1/2 to 1 3/4; Bratsberg, 1 1/2 to 1 3/4; Cape Copper, 40 to 42; Chile Gold, 1-16th to 3-16ths; Chontales, 3-16ths to 5-16ths; Colombian Hydraulic, 1 1/2 to 2. Colorado United, 1 1/2 to 2; business to-day at 1 1/2. Copiapo, 2 1/2 to 2 3/4. Fortuna, 2 1/2 to 3; the first transaction to-day was at 2 1/2, but subsequently 2 3/4 had to be paid. Frontino and Bolivia, 1 1/2 to 2. Hoover Hill, 1 1/2 to 2; business at 3-16ths. Indian Consolidated, 2s. to 3s. Kapanga, 1 1/2 to 2; business at 1 1/2; a telegram from Capt. Argall says—Cut Scotty's in No. 8 level, prospects good.

La Plata, 3-16ths to 5-16ths; Marbella, 2 to 2 1/2; Mason and Barry, 9 1/2 to 9 3/4; New Emma, 1 1/2 to 2; New Potosi, 1 1/2 to 2; Organos, 1 1/2 to 2; Orita, 1 1/2 to 2; Panulcillo, 4 to 4 1/2; Port Phillip, 1-16th to 1 1/2; Quebrada Railway, 3 1/2 to 4. Richmond, 2 1/2 to 3 1/2; the price has been improving all day, 2 1/2 being accepted in the morning and 3 being afterwards realised. Rio Tinto, 15 1/2 to 15 3/4; a small parcel of the bonds changed hands at 100 1/2. Ruby and Dunderberg, 1 1/2 to 2; St. John del Rey, 65 to 75; business at the former. South Australian Mines Corporation, 2s. to 4s. Tolima, A, 6 to 7; business at 6. United Mexican, 3 1/2 to 3 3/4; the excess of returns over outlay in the Mine of San Cayetano de la Ovejera for the week ended July 19 was 87000, and on El Diamante 8100. Western Andes, 1 1/2 to 5.

The Market for Mine Shares on the Stock Exchange has decided signs of improvement during the week, and prices are what better, but there is still an utter absence of activity, and an indisposition to speculate. Copper and tin are scarcely so firm as lead is 2s. 6d. to 6s. per ton higher, and hopes are again entertained that the permanent movement upward has really commenced. Gold is usually in favour with mining speculators, on the fallacious argument that there is no variation in its market. The name of India having lost its charm among gold mine holders—though some 17. shares of the Indian Consolidated sold to-day at a few pence, or over 90 per cent. discount—the tempt has been made to attract attention to the Assamese gold mine, but Mr. Medlicott, or whoever else it may be that speaks for theintendent of the Indian Geological Survey, has rather damped the energy of vendors. He admits the existence of gold in the Sabari river, but, as in the Mysore and Wynad district the working is more than 100 times the returns, so that as a commercial enterprise the working of it is equivalent to selling hundred pounds of England notes at 17. each. He says that "there is no doubt the Lakhimpur or Sabansiri river region is, and has long been, producing, but, from all I can gather, very little more so than washing grounds in the Peninsula. It is, however, a question whether increased working would show an increased return of which would last for any time, and the working out of this, may, I think, be advisedly left to private enterprise. I am inclined to consider that a certain small quantity of gold is brought every year from the inner mountain region to the north, where the drainage basin of the Sabansiri river; and that this is all supply the rather large community of gold washers can look to their return." It is really marvellous that capitalists are not enough to throw away their money in such unpromising speculation when in Canada and Australia minerals remain unworked which be had for nothing on condition of introducing working capital, paying a royalty on profits, and which with ordinarily careful development would return handsome profits, and benefit the entire vine in which they are situated. The market closes with a more encouraging feeling.

Our usual telegram from Cornwall this evening states:—The past week transactions in the Cornish Mine Share Market have been rather limited, but the one has been fairly good, the tin having manifested rather more firmness. In shares Dolcoath an improvement, and no doubt will attract considerable attention, owing to its improved prospects. East Pool has also been in demand at higher prices, as a good report is anticipated at the coming meeting. Tincroft has improved, owing to better prospects but does not close hardly at best. Wheal Agar closes firm, the venience caused by the recent accident being pretty nearly got. West Kitty continues to look well, and its shares remain firm. Next meeting is anticipated with considerable interest, and is expected that a 12s. dividend will be declared at the next meeting. Levant sold a parcel of tin of 24 tons this week. Most other shares are about the same as last week, but Carn Brea is a little stronger, and at North Basset the prospects are better.

The Central African Gold Exploring Expedition, with a capital of 10,000L., in shares of 17. each, is incorporated for the purpose of exploring, prospecting, and developing the mineral resources of central Africa. The prospectus, which will be found in another column, states that the capital of the company has been advanced for 10,000L., as, in the opinion of the directors, this sum will be sufficient to equip and defray the expenses of the expedition in prospecting the region indicated, and also in acquiring titles and concessions working the same after their value has been tested and ascertained. When these have been secured a company or companies will be formed to purchase such concessions, and the profits which will be derived from the sale thereof will be divided *pro rata* amongst the subscribers. Central African Gold Exploring Expedition, the originating or pioneer company. It is expected that in less than six months the company will have secured properties which by resale it is anticipated will realise a profit of 300 per cent. The company starts, it is remarked, unhindered by any commitments. No promotion money whatever will be paid, and the entire subscription will be devoted to the objects of the company.

The Neath Harbour Smelting and Rolling Works, with a capital of 150,000L., in shares of 5L. each, which will issue its prospectus week—it will be published in next week's *Mining Journal*—formed to purchase and work the celebrated Crown Copper Mine and Spelter Works, and the concessions of the famous Calamine Mines, consisting of 398 hectares (about 800 English acres), situated in the Province of Bergamo, Kingdom of Italy, estimated to contain (without calculating new seams) 425,000 tons. A concession has been obtained giving the right to explore over about 100 tons of land. Until the preference shares are called up in full the deferred shares are called up to justify it, will only receive dividends as and when there are profits to justify it. The preference shares are called up for the time being upon the preference shares. When the company has been paid for five consecutive years on the preference shares at the rate of 12 per cent. per annum, and when the dividend on the deferred shares have also been paid as above for a like number of years, the distinction between the two classes of shares will cease, and the dividends will be thereupon on both at the same rate per cent. The valuation report of Messrs. Horns Evershed, and of Mr. F. Bennett, show that the directors are justified in the amount agreed upon for the smelting works, whilst Mr. L. de la S. C.E. has reported most favourably upon the mines. The business to be carried on is practically identical with that which has proved so completely and so successfully in the case of the Cape Copper Company, whose recent dividends and bonus have been at the rate of 75 per cent. per annum. The business consists of thoroughly practical men of business, and altogether concern will commend its career under very favourable auspices.

The Ball Dredging Syndicate, to which reference has already been made in the *Mining Journal*, appear to be meeting with the success they deserve. The B or Second Syndicate has already realised the formation of a small but solid company—the Tibagy Dredging Company, with a capital of 20,000L. The directors of the company proceeded last week to Lowestoft to see one of Mr. Ball's dredges, which belongs to the Great Eastern Railway at work, and they witnessed with equal astonishment and satisfaction a 60 ton barge filled in 12 minutes with sand, coarse gravel, and large flints. They also had the opportunity of seeing the Osama—a large sea-going dredger on the same system, which is being fitted to go to San Domingo for some public works. The machinery for this dredge has, it is said, been put in hand to-day. The success of the two first dredges of Mr. Ball tells well in favour of his financial method, and of his mechanical appliances, and the C and D Syndicates, which are being subscribed, will, thought, meet with the success which ought to attach to a system in which advantage whatever accrues to anybody outside of the shareholders will have received a very large return for the capital invested.

Saxby and Farmer has been incorporated as a limited company with a capital of 200,000L., in shares of 10L. each, to purchase 100,000L. (half in cash and half in shares) the business of the same name, railway signal manufacturers. The business hitherto been carried on as a private partnership under arrangements now after 21 years' existence brought to an end by effluxion of time, and as fresh arrangements have become necessary it has been deemed to continue it with limited liability, under the provisions of the Companies Act, and this company has accordingly been formed for the purpose of taking it over as a growing concern and carrying it on. They will be assisted on the board with Mr. Charles Hodgson, who has throughout the whole of their partnership fulfilled the duties of manager, and whose most valuable services in that capacity have been secured for the company. The business will be taken over by the company from Sept. 1 next as a going concern, with existing staff, foreman, and other employees of the firm, so that no interruption in the working of the business will occur, either at home or abroad. The company will not take over any of the book debts or liabilities of the firm, but debts owing to or by the latter will be received and paid on their accounts by the company. The gold and other medals obtained by the firm at Paris, 1867, London, 1873, Vienna, Melbourne, Philadelphia, &c., are reserved to the personal souvenirs of their success at the Exhibitions held at those places.

Devon Great Consols, 2 1/2 to 2 3/4; satisfactory progress is being made in cutting down the adit shaft on the Wheal Maria part of the mine, near to where the enormous masses of copper ore were found years ago, when the shares advanced from about 17. per share to 700L. or 800L.; and it is at this section of the company's property where there is every reasonable expectation of meeting again with important discoveries of copper ores. In the 205 west level on south lode the yield has improved to 7 tons of mineral per fathom, and in the 112 west on Watson's part the lode is 5 ft. wide, producing 2 tons per fathom.

Devon Great United, 1 1/2 to 2; in the 120, east of Willesford the lode is opening out large, fully 6 ft. wide, and producing quality of copper and mundic ores, whilst the 120 west is improving.

Dolcoath, 73 to 74; and have been in improved demand during the week in expectation of an increased dividend at the next meeting. Drakewalls, 1 1/2 to 2; the sinking of the shaft has been resumed, and operations have been commenced with a view of sinking

102. The meeting of shareholders will be held on Thursday, the 1st inst., when a report by the directors and a statement of accounts will be submitted.

Kit Hill Great Consols, $\frac{1}{2}$ to $\frac{3}{4}$; the great tunnel level has been driven 15 ft. during the past week, and some branches of capel andartz continue to be intersected, showing a good indication as to a future drainage of this level. Sinking will be commenced next week below the 100 fm. level, so as to get down to the tunnel level as quickly as possible, where the numerous lodes around this point will be intersected, and good results attained. The stamps are working well, and the dressing-floors are gradually being put in order.

North Busy United, 1s. to 2s.; the copper lode recently intersected the south cross-cut, it is said, promises well, and some good ore being raised from it. This lode has the further advantage of being in very easy ground for exploring, and can be worked cheaply on the county adit, thus saving all engine charges for pumping out water. A correspondent writes:—We look upon the discovery, together with the additional set granted us, as very valuable, and we can open up the lodes for 45 fms. in depth without pumping a bucket of water.

South Devon United, $\frac{1}{2}$ to $\frac{3}{4}$; Martin's shaft, the lode in which is 5 ft. wide, is worth 20s. per fathom. The lode in the 120 west is worth 12s. per fathom, and the slope in the back of this level is worth 12s. per fathom.

South Wheal Frances, 8 to 8 $\frac{1}{2}$; Pascoe's shaft is worth 40s. per fathom, the 236 east is worth 15s. per fathom, and the 236 west is worth 22s. per fathom, whilst the 226 east has considerably improved, and valued at 25s. per fathom, and a winze sinking below the 226 west is worth 40s. per fathom.

West Wheal Seton, 4 $\frac{1}{2}$ to 5, and have been enquired for during the week, the bottom levels being reported as looking well.

Ruby and Dunderberg, $\frac{1}{2}$ to $\frac{3}{4}$; the usual report does not advise such work done during the previous week, owing to the difficulty of procuring good and reliable miners to work on tribute. On account of the general dullness of business at Eureka many of the best miners have left the camp. The mine captain, however, hoped to procure more labour the following week.

Richmond, 24 to 25; the directors have received information by telegram that the damages in the Albion suit have been assessed by the District Court at Eureka at \$14,000 (2800l.).

In Lead Mine shares the amount of business has again been very limited, but as regards one or two mines there has been more enquiry than for some time past. Roman Gravels, 3 to 3 $\frac{1}{2}$, and reported to have been more in demand, owing no doubt to an improved price for their lead ore, and the report this week shows the value of the different places as being worth 42s. to 43s. per fathom. The sale of 50 tons on Thursday last realised 665l. 15s. Leadhills, 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$, and have been in good demand, there being also a good demand for lead at increasing prices, and the mines have considerably improved during the past week, both in the bottom and shallower levels.

With regard to Lead Mines and the Lead Trade, a correspondent writes that it must be exceedingly gratifying to shareholders in some lead mines to see at last a turning point in the market for pig-lead. Formerly we used to have pig-lead selling at 24s. to 26s. per ton, and during the last few years we have seen it gradually fall from these prices down to 9s. 15s. to 10s. per ton, the quoted price some three weeks ago. During the present week there has been considerable demand both in London, Newcastle, and elsewhere at 10s. 15s. to 11s. 5s. per ton according to the quality; and, as the imports to this country are gradually falling off, as well as the production in the Welsh, Isle of Man, and other mines, we may expect to see before this year is out a rise of several pounds per ton.

London, Chatham, and Dover Railway accounts for the past half-year have been submitted to and approved by the Board, and subject to final audit show an available balance sufficient to pay a dividend of 1s. 17s. 6d. per cent. on the arbitration preference stock for the past half-year. This amount, added to the dividend of 2s. 5s. per cent. paid in respect of the half-year ended Dec. 31, will make a dividend of 4s. 2s. 6d. for the year ended June 30, as against 4s. 2s. 6d. for the previous year.

In the Flagstaff District Silver Mining Company winding-up Mr. H. Tilly, chartered accountant, has been appointed official liquidator.

The Schwab's Gully Diamond Mining Company (De Beers) directors have declared the usual quarterly dividend of 5 per cent. for the quarter ended June 30.

The letters of allotment in the Royal Silver Mines of Potosi Bolivia, have been posted.

Telegraphic advice has been received by the London branch of the Australian Joint-Stock Bank of the declaration at Sydney of a dividend and bonus, equal to 12 $\frac{1}{2}$ per cent. per annum for the half-year ended June 30; 10,000l. has been added to the reserve fund, which now stands at 230,000l.

THE HUELVA MINING DISTRICT.

There are in this province, writes Mr. Vice-Consul DIAZ, no manufactures properly so called. Within the last year two brick works have been built—one by an English company, which burns and dries its productions in the open air; and another erected by a German firm here, with an expensively-built oven and drying sheds, which is consequently enabled to place a better class of goods into the market. It is proposed to erect in the neighbourhood blast furnaces and manufacturing for the conversion on the spot of the pyrites and iron ore into the respective marketable commodities which these ores contain—copper, iron, sulphuric acid, and sulphur. Chemical works are being commenced at the Rio Tinto mines for the production of sulphuric acid, and may be followed by the erection of similar works by the other large companies of the province.

There are the well-known large mines of the Rio Tinto and Tharsis, worked successfully by the Rio Tinto Company (Limited) of London, and the Tharsis Sulphur and Copper Company of Glasgow, each with railways from their mines to this port, where they ship their ores and metals by private piers or jetties of great size and splendid construction. The Buitron Railway and Mineral Company (Limited) also has a railway (open for public traffic, as is the Tharsis Railway) from its mines near the town of Zalamea to that of San Juan del Puerto, on the River Tinto, 8 miles from Huelva, whence its productions are transhipped into lighters, and brought down to the confluence of the River Tinto and Odiel, where the steamers lie to take them in, about 2 miles nearer the coast than the town of Huelva. Of more recent date are the English companies—the Bede Metal and Chemical Company (Limited) of Newcastle, shipping in the River Guadiana from the San Telmo mines; and the Peninsula Copper Company, of London, shipping at San Juan del Puerto from the Pena del Hierro, Rio Tinto. In addition to the above mentioned is the important French company, La Société des Mines d'Alosno, of Paris, which works the group of mines called Lagunazo, situated in the district of Alosno. This company, with a view to the permanent comfort and material and spiritual enlightenment of its workmen and their families, is constructing a town called Alosnito, which, in addition to houses already built for the accommodation of the managers, engineers, clerks, &c.—64 for workmen with families, 192 for those without—schools in which there is already an attendance of 200 children of both sexes, taught by certificated teachers, will also contain a hospital with competent medical officers, and a church. The town will be rapidly increased. These mines contain some of the most important deposits of minerals in the province. One deposit alone, now entirely exposed, is 500 metres long by 40 broad, and it is intended to extract the ore this year at the rate of 10,000 to 12,000 tons per month.

A railway is about to be constructed from the Huelva-Zafra line to join the Beja-Lisbon line at the River Guadiana, passing through the mines of the Alosno Company, which will heavily subsidise the said railway on the condition of its being promptly constructed. Should those who have the concession for the railway not be able to execute the work quickly it will be taken in hand by the Alosno Company, which has already made necessary studies of the line. This will be opened a very important line of communication between Spain and Portugal. In addition to the line just spoken of there is present under construction a railway from Huelva to Zafra, in

the province of Badajoz. This important line will be concluded in about five years, and will open up a most valuable and hitherto inaccessible mining region.

TRADE AND COMMERCE OF HAMBURG.

The gradual improvement (writes Consul-General ANNESLEY) which has been visible in the chief civilised States during the past few years in industry and trade seems in Germany, as well as in other countries, for the present, to have reached a resting point. As far as the published statistics yet show, a decrease has occurred in several groups of exports from Germany, and, as regards individual articles, complaints are here and there forthcoming of scarcity of occupation, as well as of smallness of profits. The past year proved somewhat detrimental to banking interests, as the general political insecurity cramped the inclination for any undertaking; commercial enterprises also made fewer claims upon the money market. Ship-brokers, again, have some reason for complaint, owing to the declining freights to all parts, the natural consequence of the increase in steam tonnage during recent years, which decreased their profit as well as that of the steam companies. If, in spite of this, most of the Hamburg steam lines have augmented their fleets, as is shown later on in my report, it is a proof of the shareholders' determination not to give up their very difficult competition with the powerful English companies. A combination is now taking place among the Hamburg shipbrokers for the promotion of their own interests, and efforts are being made to extend the action to other German ports. Marine insurance companies suffered some heavy losses, and the rise in premiums has not yet compensated them; but no failures took place, whilst the bankruptcy of the Assurance Company of 1874, which took place in 1881, and shook the credit of this branch of business in Hamburg at that time, has terminated by the creditors being paid in full. This result, and the fact that it is stated to be the only instance of the failure of a Hamburg marine insurance company, speaks well for the stability of these institutions.

With regard to raw materials, business in coals did not fluctuate, as consumption was well covered by the imports, and prices remained steady throughout. As is shown below, a slight increase took place in the imports of both English and Westphalian coal. The sale of the latter has been extended amongst the ocean-going steamship lines, but fell off amongst the manufacturers, gas companies, and railway companies. The English competition, especially that from the East coast, renders this trade very difficult, and the extension is much insisted upon of the bounty of 50 pf. per ton, now granted upon Westphalian coal destined for transmarine export, to that used for coaling steamers, or the lowering of the railway freights to 5 marks per ton. A considerable quantity of the German coal is now directed to Belgian and Dutch ports. As the only successful means of competing with English imports lies in the lowering of the freights, the projected canal between Dortmund and the Ems, Weser, and Elbe, is well supported, although the scheme as yet exists only on paper. The year's business in metals proved anything but prosperous, the dull tone lasting or extending, more or less, to all metals. Prices fell to a very low standard.

NOTICE.

I beg to inform my numerous clients and friends and the public generally that I intend next week to resume the Advertising of Prices in my usual List which appears on the Front Page of the *Mining Journal*.

The arrangement to "keep out" prices, which has been in operation for the past six months, was strongly opposed by me from the outset, my consent to it (even as a temporary measure) being obtained under protest.

With the exception of this interval, during my connection with the Mining Market, extending over 17 years, I have consistently followed and upheld the System of Advertising Shares at fixed prices, being assured that it affords the greatest protection to the public as against "Circular" Mining and "Fictitious" Quotations, whilst it constitutes an "Open Market" for shares which could not otherwise be readily dealt in. During the past few months I have received several letters from clients and others on this subject, the writers in each case advocating a return to the old system for the reasons stated above, and because it affords greater facilities for business.

I take this opportunity of returning my best thanks for past favours and support, and shall always endeavour to merit a continuance of the same.

WILLIAM HENRY BUMPUS,

Stock Broker and Mining Share Dealer.

44, Threadneedle Street, London, E.C., 26th July, 1884.

[Established at this address in 1867.]

D'ERESBY MOUNTAIN.—A meeting has been called for the purpose of reducing the number of shares from 48,528 to 12,000 of 1s. each, by winding up the present company, and forming a new one with the reduced number. This plan has, it is understood, been adopted by the principal shareholders, who did not cordially approve of the 10 per cent. debentures in the face of the 48,528 shares. Half the mine in 6000 shares with 1s. fully paid are to be given to present holders on their taking up their proportion of the other half at 10s., payable by 2s. 6d. instalments. Thus, as it is stated in the circular issued to them, ample capital will be raised, and an old shareholder taking 100 shares, and paying 10s. upon them, would have 100 free, making 200 12,000th, and equal to 800 in the present company.

OSCAR GOLD MINE.—A report from the manager, dated July 16, has been circulated. He gives in detail a number of works which are in progress for opening out ground on the lodes for yielding large supplies of the auriferous stone. It appears that 16 samples from the different lodes, in which no gold could be seen, have given results equal to an average of nearly 2 $\frac{1}{2}$ ozs. per ton, which is exceedingly satisfactory. Even half that will yield immense profits. The whole of the machinery is on the mines, and every exertion is being used to erect it. By the end of September it is expected to be at work, and soon after that good profits may be looked for.

HOLIDAY ON THE MOSELLE.—The health reports from Paris being anything but reassuring to the Englishmen about to enjoy his usual annual holiday, intending tourists are naturally disposed to seek some attractive locality where pleasure is obtainable at moderate cost, and the Blue Moselle and Lower Rhine is brought to their notice in one of Mr. Percy Lindley's entertaining little penny holiday handbooks.—The Moselle, from the Battfelds to the Rhine. London: The Author, 125, Fleet-street—just issued. It is shown how for less than 4s. for travelling, and for 6s. to 8s. per day for board and lodging, the tourist may go from London, via Harwich, to Antwerp, thence to Brussels, Luxemburg, and Treves, where the finer scenery of the Moselle commences. A boat trip of 117 miles on the Moselle (or the railway can be availed of if time be an object) will take the traveller to Coblenz, and he can then enjoy the beauties of the Lower Rhine, reaching Rotterdam, either by rail or water, so as to be in London again within a week. The handbook is illustrated with about 20 engravings of some of the more striking buildings in the various towns and cities to be visited, and will enable the traveller to economise wherever he deems it desirable to do so—it is altogether one of the cheapest pennyworths ever issued.

MINING OFFICES, 1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON, E.C.

ESTABLISHED UPWARDS OF FORTY YEARS.

MESSRS. WATSON BROTHERS, in referring to their public Circular in the *Mining Journal*, would also observe that they BUY and SELL SHARES at the *net* market prices of the day in all well-established and respectable Mining Companies; also in English and Foreign Funds, Railway Stocks, &c.

C. PASS AND SON, BRISTOL,

ARE BUYERS OF
LEAD ASHES, SULPHATE OF LEAD, LEAD SLAGS,
ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES &c.
and DROSS or ORES containing
COPPER, LEAD, AND ANTIMONY.

GEO. G. BLACKWELL,

26, CHAPEL STREET, LIVERPOOL,
HANDLES
MANGANESE, BARYTES, SPARS, and ALL ORES on SALE
or PURCHASE.

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Mr. EDGAR JACKSON,

(Assoc. R. S. M., F. I. C.)
RECEIVES PUPILS, and ASSAYS ALL KINDS OF ORES.
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Mines inspected and reported on. Assays and valuations effected.
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Iron Ores.

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Offer to the English Investing Public rich developed and undeveloped Gold, Silver, Copper, Iron, and other Mines and Mineral Lands in all parts of the United States and Canada.
These properties have been placed in the hands of Messrs. Wood and TREHERNE for IMMEDIATE SALE.
Correspondence with this view invited from Capitalists and Promoters in London and elsewhere.

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STUD. INST. C.E.,

LAND AND MINE SURVEYOR,

CAMBORNE, CORNWALL,

PREPARES MINING PLANS AND SECTIONS, AND UNDERTAKES
GENERAL SURVEYS.

ESTABLISHED 1868.

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MANCHESTER.

HORACE J. TAYLOR,

(Seven Years Assistant-Secretary to the Port Phillip and Colonial
Gold Mining Company (Limited).

38, GREAT ST. HELEN'S, LONDON, E.C.,

STOCK, MINING, AND MISCELLANEOUS DEALER.

ESTABLISHED 1874.

BANKERS: CENTRAL BANK OF LONDON (Limited).

Early information from a special and reliable authority can be given on application as to all mines situated in the United States of Colombia.
BUSINESS in Tolima A and B, Colombian Hydraulic, Organos, Orita, and Frontino. Buyers and sellers would do well to communicate.

BRITISH AND FOREIGN MINING AGENCY.

HEAD OFFICE: CAMBORNE, CORNWALL.

LONDON AGENTS: PEARCE, SHARPE, AND CO., 59 AND 60, CORNHILL, E.C.

Mines inspected at home or abroad. Miners, Engineers, and Mechanics engaged for service in Foreign Mines. Indents for Machinery and Materials received and placed in best markets. Mining Plant and Machinery safeguarded and sold either by Public Auction or Private Contract.
THIS AGENCY DOES NOT UNDERTAKE THE BUYING OR SELLING OF MINE SHARES.

IF MR. ARTHUR STOKES, who some time ago made a report on some Mines in the Faroe Islands, will communicate with R. S. CUNNINGHAM, 122, Cannon-street, London, E.C., business might result.

COPPER ORES.

Sampled July 2, and sold at the Royal Hotel, Truro, July 17.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols. 114	£1 5 6	South Caradon	38	£2 14 6
ditto	106	0 19 0	ditto	24	5 2 6
ditto	104	1 0 0	Bedford United	82	3 13 0
ditto	103	0 17 6	ditto	80	3 11 6
ditto	93	1 3 0	ditto	43	1 9 0
ditto	92	1 4 0	Holmbush	73	0 11 0
ditto	57	4 18 0	ditto	71	0 13 6
ditto	52	1 5 6	ditto	6	3 6 0
ditto	43	3 17 6	Gunnislake (Clitters)	67	3 9 0
ditto	38	3 17 6	ditto	51	3 11 6
South Caradon	82	4 18 0	Devon Great United	85	2 10 6
ditto	79	4 2 6	ditto	10	7 4 8
ditto	77	4 11 6	Gawton	70	0 4 0
ditto	50	0 16 6			

TOTAL PRODUCE.

Devon Great Con.	800	£1309 5 0	Gunnislake (Clit.)	118	£413 9 6
South Caradon	353	1239 11 0	Devon Great Uni.	95	288 17 8
Bedford United	205	647 13 0	Gawton	70	14 0 0
Holmbush	150	107 17 6			

Average standard..... £ 90 0 0 | Average produce..... 5 5/8

Average price per ton..... £2 6 0

Quantity of ore..... 1788 | Quantity of fine copper, 100 tons 8 cwt.

Amount of money..... £4118 13 6

LAST SALE.—Average standard, £ 87 0 0 | Average produce..... 6 1/4

Standard of corresponding sale last month, £ 90 19 0 | Produce, 5 5/8

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	368 5-8	£ 880 2 4
P. Grenfell and Sons	328 1/2	716 3 1
Nevill, Druce, and Co.	327 5-8	262 10 1
Williams, Foster, and Co.	328 1/2	679 14 3
Elliott's Metal Company	213 1/2	642 9 9
Charles Lambert	213	537 14 0

Total..... 1788 £4118 13 6

NO SALE on Thursday last.

Copper Ores for sale on Thursday next, at Tabb's Hotel, Redruth.—Mines and parcels.—Mellancor 532—Levant 210—Caradon 60—Tincroft 40—Wheal Uny 40—Bedlack 11.—Total, 893 tons.

Just published, crown 8vo., price 3s. 6d., cloth (postage 5d.)

THE BLOWPIPE IN CHEMISTRY, MINERALOGY, AND GEOLOGY.

Containing all known methods of Anhydrous Analysis, many Working Examples, and Instructions for Making Apparatus. By Lieut.-Colonel W. A. ROSS, R.A., F.G.S. With 120 Illustrations.

"The student who goes conscientiously through the course of experimentation here laid down will gain a better insight into inorganic chemistry and mineralogy than if he had 'got up' any of the best text-books of the day, and passed any number of examinations in their contents."—*Chemical News*.

Crosby Lockwood and Co., 7, Stationers' Hall-court, London, E.C.

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TREATISE ON EARTH AND OTHER MINERALS AND MINING.

By D. C. DAVIES, F.G.S. Uniform with, and forming a Companion Volume to the same Author's "Metallurgical Minerals and Mining." With numerous illustrations.

"An exceedingly useful manual of reference to all persons interested in the industries discussed."—*Chemical News*.

Crosby Lockwood and Co., 7, Stationers' Hall-court, London, E.C.

Notices to Correspondents.

MINE SPECULATION.—"A. H." (County Lunatic Asylum).—We never give advice as to the purchase or sale of shares—you should ask the visiting justices—but publish all the details obtainable relative to the development of the several properties, in order to enable shareholders to judge for themselves; it may be said, however, that all the mine's you mention are chiefly mere Circular mines, and are of the most highly speculative character, and with perhaps two exceptions are likely to remain so. Share-dealing requires quite as much experience as nursing lunatics, whilst the profit is less steady. The mines which have made large profits may do so again, and then you would have no cause to complain; but a woman who speculates with her hard-earned wages in a business she knows nothing about deserves no pity if she loses.

ADVERTISING PRICES.—"E. F." (Carn Camberne).—The compact between the dealers expires on Thursday next, and it is understood that several will recommence advertising prices next week. The pretended unanimity was obtained three months since by the personal and earnest canvass by one of the "Circular miners," and there is no doubt that so far as the Circular miners' securities (?) are concerned the public have been placed at an enormous disadvantage by the change. In some cases bona fide capitalists complain that they have been induced to take shares at four times the price at which they are saleable in the market.

FIG PROPS.—"H. M." (Redruth).—The quantity shipped from Gothenburg in 1883 was rather less than 10,000,000. The shippers were:—
Trävarbolaget ... 1,764,071
Helsingfors and Vleugel ... 1,517,571
Andersson and Lindberg ... 1,363,123
J. Björkman ... 1,355,405
C. F. Sandberg ... 1,138,015
E. P. Liedquist ... 915,654
N. Oterdahl and Co. ... 516,158
G. Hernlund and Co. ... 484,795
and other firms 352,250 cubic feet.

RECEIVED.—"G. P." (Inserted as desired).—"J. L. M. F."—"R. S." (Turro): See note to letter on page 793. These who have the first word should not expect the last also—"H. R." (East Wheel Lovell): No official is held responsible for *ex parte* or interested statements made by other people; nor is the authority of an official necessary to enable a shareholder not being an official to send a letter to the *Journal*. We pay no attention to requests for contingent insertion of communications sent—"E. P." It is always preferable to write on one side only of the paper, but infraction of the rule would not exclude a communication—"A. C." (Nacupal and Nouveau Monde): Your arguments being based upon English legal theory would, if published, give rise to interminable and useless discussion. The dispute must be settled according to Venezuelan mining law, which is understood to be an admixture of French and Spanish, the latter preponderating. The real question is whether the concessions were not open to a fresh denunciation; anyone has the power of denouncing a mine which has been unworked or inefficiently worked or depopulated for more than four months—"W. N." (Melbourne): The silk paper is excellent for the manuscript, but it will be preferable in future to send diagrams in clear, not copying, ink, as the lines in a press copy are not always very decided—"C. L. H." Answered by post.

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, JULY 26, 1884.

AUSTRO-HUNGARIAN INDUSTRIES.

As some attention is now being directed to the development of Hungarian mines some few remarks from one of Mr. FREEMAN's late reports from Serajevo will be of interest. The past 12 months he says has shown a marked improvement in the trade of these provinces. The good harvest, and especially the abundant plum crop, which more than any other brings money into the country, was the principal reason of this improvement, although the tranquil state of the country no doubt also conduced to this end. The trade of these countries is almost independent of outer circumstances. With the exception of plums the exports are unimportant, local industries and manufactures are insignificant, and the fluctuations of trade are almost exclusively contingent on home consumption. A good harvest, therefore, which puts money into the pockets of the peasants, tends more than anything else to animate trade. The commerce of this country, however, seems more and more to be slipping out of the hands of the natives. Many merchants who were doing a good business before the Austrian occupation have ceased to trade, and live merely on the rent of their house property.

No great development of the mineral wealth of this country has taken place during the past year. With the exception of coal at Zenica, and the native ironworks at Vares, Kresovo, &c., the only minerals he believes at present extracted are manganese and chrome at Cevljanac and Dubosca by the company called the Bosnia. This is a privileged company, half of the shares being held by the Government, and it is entitled to a reduction of 1 fl. (1s. 8d.) per ton on the carriage of its ore by the Bosna-Bahn. It can at present export ore to the value of 1,000,000 fl. (83,000*l.*) annually, and has entered into contracts with English houses. The native iron industry is decidedly languishing. At Fojnica and Kresovo it has almost ceased, and at Vares, in consequence of representation on the part of the inhabitants of the depressed state of the trade, the Government has reduced the annual tax ("desetina," or tithe) on iron ore levied in the village from 2000 fl. to 1000 fl. The tax on charcoal, not levied under the Turkish Government, has also been reduced from 10 kr. (2d.) to 3 kr. a horse load.

Under the Turkish Government nearly all the timber exported was in the form of oak staves, as being easy to transport on pack-horses where no roads or water communication existed. The purchasers were either French or Austrian firms. The first sale effected after the occupation of Bosnia by the Austrians was in 1880, in the Kozarac and Motajica mountains, in the department of Banjaluka, and consisted of trees felled and left in the forest under the Turkish administration. The price realised was 2 fl. 50 c. (1s. 2d.) per cubic metre. The next sales occurred in the winter of 1882-83, in the forest of Rakavoc, district of Prnjavor, department of Banjaluka, and realised an average price of 2 fl. 41 c. (1s. 4d.) per cubic metre. Further sales were effected in the same forest last winter at an average of 2 fl. 99 c. (1s. 5d.) per cubic metre. The forest of Rakavac is about 15 miles from the Save, and the oak staves were brought down the valley of the Verbas, and thence by the Save to Sisek. The sales on these occasions were of selected trees, as they stood in the forest, a certain number being felled and cut up as samples.

During the coming season the following timber will be offered for sale by public auction:—1. Department Bihac, district Krupa, forest of Carkovaca, 5000 to 7000 oak trees. The forest lies about 12 miles north of the town of Krupa, and the timber can be taken by road to the station of Novi, on the Banjaluka-Sisek railway.—2. Department of Banjaluka.—(a) Districts Prijedor, Kostajnica, Gracka, forest of Kozara. In the Prijedor part of the forest, which will be offered for sale this year, there are very fine beech and fir trees and about 2000 oak trees. There are roads available for wheeled vehicles connecting these three forests and leading to Kozarac, whence the high road goes to the Prijedor station on the Banjaluka-Sisek railway. Distance of forests from Kozarac varies from 5 to 8 miles. (b) District Prnjavor, forest of Rakavac, 1200 to 1500 oak trees. (c) District Prnjavor, forest of Motajica, 6000 to 10,000 oak trees. This forest extends nearly down to the Save. (d) District Banja-

luka, forest of Prijeka, 5000 oak trees; five to nine miles by good forest road to the Banjaluka railway station. Adjacent to this forest are numerous others, extending to the districts of Prnjavor and Tesanj, containing chiefly oak trees, with an admixture of fir and beech, but especially in the district of Tesanj there are said to be fine virgin oak forests.—3. Department Travnik.—(a) District Zenica, forest of Golubinsko Hrasce, 5000 oak trees; two to five miles from the station Han-Begov, on the Serajevo-Brod Railway, and adjoining the River Bosna. (b) District Zepce, forest of Mracaj, 4000 oak trees, also near the Han-Begov Station, but on the opposite side of the River Bosna. This forest forms part of the great forest on the Rapte Planina, which lies between the Bosna and Krivija rivers, and contains oak, beech, and pine trees.—4. Department Dolnji Tuzla.—(a) District Maglaj, forest of Gostovic, about 5000 oak trees. The timber from this forest can be floated down the Gostovic stream in three to four hours to the Serajevo-Brod line of railway. (b) District Gracanica, forest of Brodovo, 6000 oak trees. This forest is difficult of access, as unless the timber can be floated by the Jadrina and Spreca streams, which appears doubtful, it must be brought by cart to the station of Doboj, which is a long day's journey. In all, therefore, there are 40,000 to 45,000 trees marked out for sale in these provinces during the present year.

It is difficult to form an opinion as to the prospects of trade during the current year; but it is hardly likely that business will be so brisk as of late. The spring weather has so far been favourable to agriculture, but it is too early to speculate on the plum or other crops. That they will come up to those of last year is scarcely probable. Tranquillity, however, reigns throughout the province, and there is reason to hope that trade and commerce, if not as prosperous as last year, will not at all events relapse again into the depressed state which existed prior to 1883.

AUSTRO-HUNGARIAN COMMERCIAL POLICY.

Concerning the commercial policy of the year 1883 nothing particular can, writes Consul-General NATHAN, be noted. The only event worth recording was the conclusion of the Austro-French Treaty of Commerce, which was signed on Feb. 18 last. By this convention the present system of commercial neutrality has been maintained, but not for any fixed period.

Both States recognise "the most favoured nation clause." Austria reduced the duty on champagnes from 50 fl. to 40 fl. per 100 kilos. in return for France allowing the imports of sheep and of fresh meat under certain precautionary measures, in accordance, however, to the provisions of the general Customs' tariff. The most important point gained by Austria, appears to have been, however, the inclusion of sugar within "the most favoured nation clause." Until now this article had been excluded therefrom, and sugar being one of Austria's principal exports to France, it was apprehended that this would be a permanent source of danger for this branch of industry. Just now, on the eve of the inauguration of the Arlberg Railway, when the commercial relations between France and Austria are likely to increase greatly, the introduction by France of any disadvantageous rate would have acted like a death blow on the Austrian sugar industry. This commercial convention came into force on March 1, and six months' notice is agreed upon to terminate it. This characterises the convention as a provisional one, and hopes are entertained that a definitive treaty may soon follow.

The Navigation Treaty, the Consular convention, and those relating to inheritances and the rights of authors will remain in force until they are succeeded by newer conventions; notice of termination is required to be given one year in advance. Besides this French convention there still remain the Roumanian and the Turkish commercial treaties, which are on the point of being reconstructed. With regard to the first-named country, conferences which hitherto have taken place had only reference to the levying of customs there on Austria's principal exports; an arrangement has been proposed for depositing there recognised samples of the different classes of goods, in accordance to which the different rates would be fixed. It is, however, expected that future negotiations will deal with the taxes and dues now levied in certain towns, besides pedlars' licences and other minor matters. With respect to Turkey it is known that this country wishes to reform her present Customs' tariff, in other words to increase certain rates, but the Imperial and Royal Government has declined to decide upon this subject before having consulted the different Chambers of Commerce of Austria-Hungary.

SOUTH WALES INSTITUTE OF ENGINEERS.

The annual general meeting of this Institute was held on July 17, at the Royal Hotel, Cardiff, Mr. JAMES COLQUHOUN, F.R.G.S., in the chair. There was a numerous attendance, and more new members and associates were balloted for than on any previous occasion. After the usual routine business was concluded, the President, after thanking the members for the high position in which they had placed him, proceeded to deliver his inaugural address. It was not, he said, until the end of last century that there was any marked improvement in the population of Monmouthshire and South Wales. In Cardiff alone, in the year 1811, it was only 2500; in 1861 it rose to 35,000, and at the present time it is computed at nearly 100,000, showing a rapid growth during the past 23 years. In order to show the wonderful progress and the spirit of enterprise that have prevailed in South Wales in the shipping trade I have received from a reliable source a short history of the ports of Cardiff, Newport, and Swansea, with the quantities of coal, coke, and iron shipped since their commencement; and as this information may be of some interest, it will be found in the appendix. Cardiff is now the largest coal shipping port in the world, and the quantities shipped, both at Newport and Cardiff, have largely increased during the past few years. The superiority of the coal of South Wales has obtained for it a high reputation in almost every part of the world, and it was only to be expected that the development of its coal fields would be pushed forward continuously with increased vigour.

The output of coal in the United Kingdom in 1883 rose to the unprecedented quantity of 156,499,977 tons, and South Wales has contributed—Breconshire 164,438 tons; Carmarthenshire, 664,102 tons; Glamorganshire, 17,708,740 tons; Monmouthshire, 6,345,503 tons; Pembrokehire, 92,650 tons=24,975,433 tons. With the exception of North and South Durham this is a larger output than any other mining district, but the increase over 1882 is no less than 2,153,055 tons, being double the increase of Yorkshire, and about four times that of North and South Durham.

Of late years many improvements have been adopted in the method of working the various seams of coal, in the introduction of mechanical ventilation, and in numerous appliances for the greater security of the workmen and the prevention of disastrous accidents to the mines. In sinking operations two notable instances may be mentioned, in Monmouthshire and in the Aberdare Valley, where rock-drills and dynamite skillfully applied, have won the coal with rapidity unsurpassed in South Wales. After referring to the economical arrangements for underground hauling by machinery, the President referred to the coke trade, and the best means of washing and grinding the same, and the best description of oven employed. He then observed that the produce of the blast-furnace has, within the memory of many members of the Institute, enormously increased. Not very many years ago 100 tons per week per furnace was considered a large output, but now 600 to 700 tons is not considered extraordinary working. This has been accomplished by increasing the height and section of the furnace, in raising the temperature of the blast to 1000° and 1500° Fahr., by improved iron and brick stoves, and by other modern improvements. In the year 1883 the total production of pig-iron in the United Kingdom was 8,490,224 tons. South Wales is the third largest producer, and made 887,259 tons of nearly all Bessemer and tin-plate quality.

Manufacturers have, as occasion required, incurred a large expenditure in remodelling their blast-furnace plant, to reduce the cost of pig-iron, and the results will compare favourably, both as regards the consumption to fuel and the produce per furnace, with any district in the United Kingdom. It must be admitted by those intimately connected with the iron trade that manufactured iron, which for so many years has been employed in railways, shipbuilding, and

engineering works of every description, is gradually and surely supplanted by steel. Its decay is quietly going on; and, although the struggle to maintain its use for a few years will be severe, it requires no prophet to foretell that ere long it will be numbered with the metallurgical operations of a past generation. Not many months have elapsed since the manufacture of Bessemer soft-iron was perfected so that it could be successfully used instead of bars for tin-plates; and its introduction has found such favour that tin-plate makers as to lead to the conclusion that the forges will be discontinued at no very distant date. The steady onward progress of these improvements is only a sign of the age we live in, sooner or later the laborious work of the puddler must give way to the more scientific and less wasteful system employed in the production of steel.

The depression in the steel and iron trades that has existed some time has not extended to the tin-plate industry. No complete returns are published of the number of boxes made last year, but it is estimated that South Wales and Monmouthshire produce the fourths of the whole of the United Kingdom. Several of the manufacturers have erected a steel plant, and, as already stated, there is a growing demand for Bessemer bars. The machinery at many of the works is of the newest and best description, the railway and shipping facilities are most favourable, and the materials can be procured at a comparatively cheap rate. These advantages lead to the conclusion that the pre-eminence and reputation enjoyed so long in South Wales will continue to exist. We have been able to chronicle great progress in the mining and metallurgy of the district; but in building anything that can be said is of a disappointing character. It would have been thought that a district rich in minerals, with immense facilities for the production of iron and steel, and with excellent river and sea accommodation, would have had this industry long ago established, and now in a flourishing condition. But energy and perseverance that have been displayed by capitalists in other branches of trade would, no doubt, devise some means of gradually obtaining all the skilled people required. If the manufacturers had the opportunity presented of supplying the plates, would, no doubt, be able to compete successfully with the North makers, and supply them with promptitude.

At the present moment the manufacturers are depending almost entirely on the production of rails, fish-plates, and bars, and if a building could be made a financial success it would not only be the industrial establishments on the hills, but bring a large increment of prosperity to the principal ports of the channel. An all-unprecedented depression exists in the steel rail industry, and, considering the enormous power of production, there appears to be immediate prospect of a demand sufficient to keep the works employed. The life of a steel rail has not been definitely determined, but unquestionably there will be much fewer renewals required than with iron. There are vast tracts of country unimproved with railways—India, China, and elsewhere—which will, no doubt, as civilisation advances, and the importance of railway communication becomes appreciated, create a further demand. Amongst the most important engineering feats are those of the Severn Mersey Tunnels, which are now so far advanced that the difficulties attending their construction may be said to be overcome. The mer will give immense facilities for the carrying of coal to Looe and the South of England, and will be of great benefit to the South Wales trade generally.

The varied and important discoveries in the arts and sciences compel manufacturers to advance with the times. What would be considered a large production, either from furnaces or mills today may a year hence be outstripped by newer and better processes, technical education our continental neighbours are ahead of us, the increased advantage now existing will, no doubt, soon supply training that is necessary to the staff of agents employed at the ferent works, to adapt themselves quickly to any new condition things that may arise. Formerly no great attention was given to determining the chemical properties of iron and steel, but now chemist is an indispensable person connected with every important establishment. After very careful consideration, the Council agree to send a circular to landlords, owners, agents, or managers, inviting them to become members or associates, in order to strengthen the Institute, and to enable a permanent home to be established at Cardiff. It is to be hoped this will receive a cordial response, and that the membership will be largely increased, and its usefulness greatly extended.

After a vote of thanks to the President, and the discussion of papers read at previous meetings, the members dined together, an enjoyable evening was passed.

SCOTCH PIG-IRON WARRANT MARKET.

Mr. W. WILSON (Glasgow, July 24) writes:—The warrant market has been steady during the week, and a fair amount of business doing on trade account. The stock of warrants is firmly held, there is little or no fresh buying on the part of outsiders. For the first half of the year there is probably a slight decrease in the stock of pig-iron in Scotland, although the stores show a small increase. Shipments are small for the week. There is no change in number of furnaces blowing: 90 tons were taken out of stores last week, while 65 tons were taken out at Middlesbrough. Business was done during the past week at the following prompt prices:—

Thursday, July 17.	Friday, July 18.	Monday, July 22.
41/4, 41/3	No market.	No market.
Tuesday, July 22.	Wednesday, July 23.	Thursday, July 24.
41/2, 41/2, 41/3	41/3, 41/3, 41/3	41/3, 41/3
1884.	1884.	1884.
Price of Scotch Warrants, July 23.	41/3	41/3
Furnaces in blast in Scotland do.	96	115
Iron in store at this date	588,036	584,911
Shipments of Scotch pig-iron for week ending July 19	8,706	13,843
Do, since beginning of year.	314,839	353,423
Price of Middlesbrough, No. 3, July 23	36/9	36/3
Furnaces in blast Middlesbrough dist.	99	117
Middlesbrough Iron Imported at Grangemouth, week ending July 19	4,145	3,940
Do, since beginning of year	146,374	150,494

THE BLOW-PIPE IN CHEMISTRY, MINERALOGY, AND GEOLOGY. In noticing Col. Ross's most recent work upon blow-pipe analysis "The Blow-pipe in Chemistry, Mineralogy, and Geology." Containing all Known Methods of Anhydrous Analysis, many Working Examples, and Instructions for making Apparatus. By Lieut.-Col. W. A. ROSS, R.A. (retired), F.G.S., Member of the German Chemical Society. With 120 Illustrations by the Author. London: Crosby Lockwood and Co.—the discovery of several somewhat serious errors in a single table, coupled perhaps with the circumstance that the colonel's views are not regarded by all scientists as strictly orthodox, led the reviewer to refer to the whole volume in rather condemnatory terms. Admitting, however, its defects, it is but justice to the author to say that he has treated every branch of his subject in a thoughtful and straightforward manner, and that where his views are not in accordance with those of previous writers on the subject, the facts which he records are the result of his own investigation and such as a student can readily recognise and utilise. One of the best known chemists of the day remarked that the improvements which Col. Ross has effected in blow-pipe analyses are quietly finding their way into general practice both in England and on the Continent. Col. Ross explains carefully the meaning of the technical terms which are impossible to help employing, and gives instructions to the student how to construct his own apparatus, or, where this is impracticable, where to procure it at the least possible price. He evidently considers, as do the Germans, that science is best acquired by investigation, and that the use of the blow-pipe is one of the easiest and cheapest means of investigation. With the principle here laid down we fully agree. Actual, careful, patient work is the only method by which any science can be truly acquired. The student who conscientiously goes through the course of experimentation here laid down will gain a better insight into organic chemistry and mineralogy than if he had "got up" any of the best text-books of the day, and passed any number of examinations in their contents. The author's method

It is not here discussed, as they have been already considered in reference to his two former works, *Pyrology* and *Alphabetical Manual of Blow-pipe Analysis*. We read, however, with surprise that the following footnote is given:—"I understand that 'The City and Guilds of London Institute' have quite recently, by the advice of an irresponsible chemist, cut out blow-pipe analysis, as worthless, from their curriculum. It is still untaught at the Royal School of Mines." Comment is here surely needless. From another note we learn that "Berzelius once compiled or edited the part of the work on the blow-pipe which bears his name, the real author being undoubtedly his teacher, Dr. Gahn. It is now well known, also, that Gahn was the real author of the work on the blow-pipe attributed to and appropriated by Bergmann." There can be no doubt that interesting little notices such as these bearing upon the subject which one is learning to light upon the labour of study, and which Ross has kept this fact in view throughout the volume. He expresses himself in a familiar and attractive style which insures the student's attention being firmly fixed upon the points to which he is endeavouring to refer as landmarks.

REPORT FROM CORNWALL.

July 24.—Still there is no material change to report in either the position or prospects of mining in the West. A few changes for the better, as a rule, have taken place in individual concerns, but that about all. Tincroft is one of the mines that has made a good start, and nothing would surprise us less than to see a very marked advance here. The mine is bound to improve, and there seems good reason to believe that it will not be needful to wait long. We believe, moreover, that most of the mines in this district will show an improvement at the next account.

It is somewhat difficult to understand the attitude of the Duke of Devon towards his mining property. He is not by any means an inconsiderate landlord; far from it. The little town of Tavistock has been treated by the Russells from generation to generation with a measure of consideration that is probably without a parallel in England. The residents have not merely had only to ask and to be obeyed, but again and again they have had without asking, and really one of the inhabitants have grumbled at being asked "too much." It is not very long since 75,000*l.* was remitted in rent in one half-year to the agricultural tenants on the duke's estates. But when mining is in question nothing is done. That Wheel Crebor has just been refused reduction or remittance of either rent or dues is in accordance with the duke's general policy towards his mining property. As we have said it is difficult to understand this, for quite apart from the mines themselves Tavistock is so dependent upon mining enterprise as a town, that anything that retards the progress of mining in the neighbourhood is doubly serious.

Judging from the family tradition, and the liberality that has been shown in so many other directions, it might with some reason have been thought that the duke would have led the way in mining reform—at any rate so far as the equitable assessment of dues is concerned in Devon. Is it not possible in any way to lay the whole question apart from any individual mine—clearly before him, and to allow of a better principle than that now in vogue as a basis of arrangements in future? We would really hope that he has yet something of this sort might be done. But it would have to be done direct.

The members of the Geologists' Association, under the presidency of Dr. Hicks, are spending a pleasant and no doubt scientifically profitable week in South Devon, inspecting many of the leading points of geological interest, under the guidance of Mr. Pennington, F.R.S., F.G.S., Mr. Champenowne, F.G.S., and Mr. Worth, F.G.S., of Plymouth. Totnes, and Dartington, and Torquay have had a large proportion of their time among the Devonian rocks, and they have very little to do with mining localities. To-day, however, they have visited the verge of Dartmoor at Shaugh, and to-morrow they go to Brent Tor and the Wheal Friendship district, while Saturday morning will be spent in an inspection, under the guidance of Mr. L. Martin, of the china-clay works at Lee Moor. Of this, however, more next week.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

July 24.—Mining operations in Derbyshire have undergone very little change of late, and whilst in one department low wages are necessarily the rule, in the most important short time prevails, and mining is in anything but a flourishing state, and will no doubt remain so until the price of lead materially improves. Some of the all mines being worked cannot be of much value to those who work them, as their working in all probability does not admit of more than ordinary miners' wages. There are a few, however, that give favourable results, and these are such as are worked energetically with capital and the best machinery. Not much ironstone is now being mined in the county either by the Staveley or any other companies, and of which at one time raised a large quantity of ore in connection with the coal measures. The Butterley Company a few years ago raised a large tonnage direct, as did the Sheepbridge, Staveley, and Riddings Companies. But of late the ores of Northamptonshire have largely superseded those formerly worked in the county. For some months past the Coal Trade of Derbyshire has been very quiet, and most of the collieries on short time. At the present time, however, they are as bad off as at any previous part of the year, if they are not in a worse state.

The London trade is most important to many of the leading collieries in Derbyshire, and during the last few weeks at least it has been particularly quiet, and the prices so low as not to admit of a profit. A great deal of the coal sent to the Metropolis is for household purposes, and the consumption of late has, of course, been moderate, whilst the stocks held by merchants and dealers have not been low. Gas coal, of which also a considerable tonnage goes forward, has not been in much request, and the companies do not put their stocks above their ordinary requirements. In steam coal about average business is being done for the railway companies and for smelting, but not much is being sent away for other purposes. Moderate tonnage is sent to London, but there it is delivered as low as 18*s.* per ton, which it need scarcely be said cannot by any means admit of a profit. Small coal for manufacturers is still in moderate request, and the competition with other districts for Lancashire is particularly keen, whilst the prices are scarcely raised in many cases to the cost of production.

The Iron Trade of Derbyshire has undergone very little change of late, the production being still considerably below what it was, and at the same time the market is fully balanced the local as well as the outside consumption. A large proportion, however, of what is produced continues to be consumed at the foundries, and a fair quantity for the making of ordinary merchant iron, in which the Butterley Company in particular is extensively engaged. A considerable tonnage of gas and water pipes continue to be turned out at Staveley and some other places, the works named having a very high reputation for both pipes, pillars, and cylinders. For lighter castings, however, there is not much doing, at least not sufficient to keep the works fully employed. In malleable castings a steady business is being done, as there is also in steel spades and shovels.

Some few branches of the Sheffield trade are not so good as they were for the season for certain specialties is now over. This is the case as regards lawn-mowers, hay-forks, and similar material, in which a very fair business was done earlier on. Makers of sheep-scissors continue to be well employed, mostly on export orders; but the ordinary scissors branches are comparatively quiet, there being still a good deal of competition on the part of the German manufacturers, who put on their goods the names of Sheffield makers, as well as their brands. The cutlery houses have been working much as usual, the old ones engaged in the best qualities of table and other knives being able to keep their hands fairly employed; but much is not the case as regards some others, especially those dependent entirely upon the home markets. Edge tools have been in moderate request, but there has been a steady demand for pickaxes and other tools. Of late there has been an increased consumption of Bessemer steel, not only in billets but for the rail trade as well, and it would appear that the railmakers are now able

to obtain a higher price than they did a few months since. There is also a steady production of railway springs, tyres, and axles, and similar material. Crucible cast-steel wheels are now fast replacing all other kinds, and in them a fair business is being done with mine-owners, for whom a special quality is made for underground work. Large contracts are in hand for heavy composite plates at both Brown's and Cammell's, and this department is consequently very busy, and likely to be to the end of the year. In ordinary iron-plates, however, only a moderate amount is being done; but there is a steady run upon hoops and wire at several pieces. The engine-works are working steadily, and most of the foundries are working favourably.

The South Yorkshire Coal Trade remains in much the same state as it has been for some weeks past. Some few collieries are able to find their men full employment, but the majority are only working about four days a week. The business doing with the Metropolis is still very quiet, and the prices ruling are such as to make colliery owners indifferent as to sending to that market. At the pits, house coal is selling as low as 6*s.* per ton, and Silksstones as low as 8*s.* In steam coal there is a steady demand, a considerable tonnage being sent to both Hull and Grimsby for shipment to the North of Europe, whilst a good deal is also forwarded to Goole for the home ports.

TRADE OF THE TYNE AND WEAR.

July 24.—There is still a steady demand for best steam coal, and shipments to the Baltic and other districts continue on a good scale from the principal shipping places on these rivers and also from Blyth and Amble, in the northern part of the district. The demand for second-class steam and small coal is rather quiet, as it also is for manufacturing coal. The enquiry for gas coal, and for coke for shipment is fair, but for inland consumption not so good. There is no change in the value of any kind of fuel, with the exception of house coal, for which there is a good shipping demand at present, and some of the best Wallsends have been advanced 6*d.* per ton this week. The shipments of coal at Seaham Harbour have again been very brisk during the week, but the market for gas coal continues very gloomy.

The sale of the engines and other extensive plant at the Thornley Collieries has not been carried out, and there appears to be some prospect at present that the works will be taken up by a large iron firm connected with the district.

There is not much change in the general state of business, but an improved tone can be noticed in some quarters; this has been particularly the case in the chemical trade; a reduced output and a strong demand for disinfectants have contributed to a demand which, during the past week, has been exceedingly firm for bleaching powder. The price of this product is now very firm at 9*l.* per ton. Other products in this trade are also in good demand. Several Scotch coasting vessels have arrived in the Wear to load house coal. Turns in the Wear at present are long, one of the large collieries having trade for three or four weeks. The shipments of coal at Tyne Dock for the week ended July 19 amounted to 100,117 tons, against 97,508 tons for the corresponding week of last year.

A limited liability company has been formed on the Tyne for the purpose of buying up cheap tonnage which may be thrown in the market. The company is called the "Prince Steam Shipping Company." Several influential names are down for directors, one of them being Mr. James Knott, Quayside. He will be managing director and secretary. The capital is 250,000*l.*, divided into 5000 shares of 50*l.* each. This company ought to be successful, as good steamers in complete working order can now often be bought at low prices compared with what they cost for building only a short time ago.

The Iron Trade continues extremely quiet, and this has been more marked since the Quarterly Meeting. Very few transactions have taken place, and a stagnant dull feeling pervades the whole trade. Makers, however, still adhere to the late price—37*s.* for No. 3. The shipments continue fair for the time of year. There is no improvement in the steel trade, but makers adhere to late rates fixed by the trade. There is little change in the manufactured iron trade. The launching of new ships continues on those rivers, and there appears to be some hope that an increase of orders will be got for new vessels shortly, as the wages of most of the operatives employed in the ship yards have now been settled for some time to come. There is no change in the value of any kind of manufactured iron. A portion of the Britannia Ironworks, Middlesbrough, is to be restarted. The stock of Messrs. Connal's warrants, on Friday, was 57,551 tons—a reduction of 115 tons on the week. It is hoped in some quarters that an improved demand for iron for railway material and plant, &c., will spring up shortly in the East. It appears that a great extension of the railway system in India has been resolved upon, and it is also hoped that railways on a good scale will be introduced shortly in the great Chinese Empire.

We have often alluded in this letter to the supply of the best Wallsend house coal from this district direct to the consumers in London, and we have also noticed that the Marquis of Londonderry, one of the largest colliery owners in the county of Durham, had taken steps to carry this out, and so far his efforts have been crowned with the success that they deserve. In carrying this movement out to a successful issue the noble marquis has now acquired an extensive site at Nine Elms, alongside the River Thames, for the purpose of carrying this scheme fully out on a large scale. A series of six hoppers, each containing 300 tons, are carried upon columns, and roofed over. In front of the wharf an overhead tramway, supported on piles, has upon it three portable steam cranes, by which the coal will be unloaded from the steamers direct into the hoppers with very little breakage. The arrangements for landing the coals, and also for saving them, are very complete and ingenious. Of course a good deal of small coal will be produced in these processes, and it is probable that the small coal will be converted into patent fuel, and this coal is well adapted for this purpose. A fair business is now carried on in the Wear district in the manufacture of patent fuel. This wharf being very near the main line of the London and South-Western Railway could by a short viaduct be placed in a position to deliver seaborne coals on that railway system. It is expected that this wharf will be ready for work by the autumn. Messrs. Edward Withy and Co., of Hartlepool, have built several vessels for the marquis's fleet of colliers, and they have now in hand an order for two boats, one being a special steamer capable of passing under the bridges, which will load at Seaham Harbour, and be discharged alongside the wharf. The wharf will hereafter be known as the Seaham Coal Wharf, county of Durham.

The Lead Trade in this district is still paralysed by low prices. Lead here is now quoted at 10*l.* 10*s.*—a rate that, in many cases, is inadequate to pay expenses. The low prices, however, naturally reduce the production, and, though some of the smelters have considerable stock, the total stocks have been much reduced. There is still a large importation, but the low prices keep that down also. There is much competition with British producers of lead—both sheet, white, and red lead—in the foreign markets, that were once almost entirely supplied from this district. It is believed that the low prices are now reducing the production, and also stimulating the consumption; and that this will lead to a rise in the price of lead in the future.

It is now definitely settled that the Prince of Wales will visit Newcastle, and on Aug 20 open the magnificent park in Jesmond Dean, presented to the town by Sir Wm. Armstrong, and also the new museum at Banas Bridge, and the free library in Bridge-street. Very fine new buildings have been erected for those two most useful institutions. On Aug 21 his Royal Highness will proceed down the river for the purpose of opening the new docks on the north side of the river, which have hitherto been known as the Coble Drain Docks. It is, however, now proposed to christen them as the "Albert Edward Docks," a very fitting title. The decorations in the city and suburbs will be on a large scale, and in a style quite new in this district, for in the place of Venetian masts some very artistic and characteristic archways will be thrown across the principal streets. The Prince and Princess of Wales during their stay here will be the guest of Sir Wm. Armstrong, at Cragside, near Rothbury, a beautiful village on the Coquet, 30 miles north-west from Newcastle-on-

Tyne, and the proposed visit has evoked a strong feeling of loyalty in Rothbury. The inhabitants have determined to show their loyalty to the heir of the British throne in a truly Northumbrian spirit.

The reception which their Royal Highnesses will receive in Coquet Dale will be most enthusiastic, and will prove the people's admiration of the Prince and Princess, as well as their high regard for Sir William and Lady Armstrong. The resident inhabitants of Rothbury have resolved to make the occasion of the Royal visit one of the greatest galas ever held in any locality of rural England. The grandeur of the mansion at Cragside, and the unique beauty of the places that surround it renders it a fitting residence for royalty at any time, and to bring the village into harmony with the beauties of this modern palatial home is the general wish of all. A committee has been formed to make arrangements benefiting the occasion, and the decorations will be admirably carried out. Apart from the flags and other decorations there will be fireworks on Rothbury Hill, and also a large bonfire on the highest part of the Simonside hills.

REPORT FROM LANCASHIRE.

July 24.—The Coal Trade throughout this district continues extremely quiet, and so far as the future is concerned, prospects are discouraging. The depressed state of the iron trade, which is necessitating the damping down, or blowing out, of a number of furnaces in the district, is seriously affecting one very important outlet for the consumption of coal, and in other branches of industry which are large users of coal a slackening off is generally reported, so that the outlook for the future is rather in the direction of decreasing than of increasing requirements.

The wages dispute in the West Lancashire district is practically at an end, and the threatened strike, as I anticipated in my previous reports, has not resulted in more than a temporary stoppage of the pits. The bulk of the men have returned to work at the reduced rate of wages, and, although resolutions have been passed to stop the pits in certain districts, whilst the others are kept working, this is a policy which the men must well know the employers would not tolerate. It is, in fact, simply a pretence of showing, at least, some resistance to the reduction in wages; but the men themselves are so conscious of the weakness of their position, and are so much "at sixes and sevens," that anything like serious opposition to the reduction in wages is altogether out of the question.

So far as the market is concerned, the dispute has had no material effect. Supplies have continued plentiful, and in excess of the demand, whilst buyers have been quite indifferent about giving out orders beyond their hand-to-mouth requirements. In a few cases colliery proprietors, when their pits were stopped, attempted to put up their prices, but buyers promptly stopped further orders, and it was very soon found that old rates would have to be returned to. The only effect of the short stoppage of the pits has been to put a temporary check upon under-selling, but the ordinary current prices in the market have been unchanged. At the pit's mouth the average price for best Wigan Arley remains at 8*s.* 6*d.* to 9*s.*, with second qualities averaging about 7*s.* Pemberton Four-feet, 6*s.* 6*d.* to 7*s.*; common round coals, 5*s.* to 6*s.*; burgie, 4*s.* 6*d.* to 5*s.*; best slack, 4*s.* to 4*s.* 3*d.*; and ordinary qualities, 3*s.* 6*d.* to 3*s.* 9*d.* per ton. So far as the demand is concerned, all descriptions of round coal continue bad to sell. Burgie, if anything, is rather a drug, and it is only in slack that supplies show a tendency to fall slightly below requirements. The short stoppage of the pits has had no material effect upon stocks laid down on the pit banks, as at most of the collieries there has been sufficient coal held under load in wagons to meet the small requirements of customers; and in the Manchester district, where the pits have been kept going about four days a week, there has been a continued accumulation of stocks.

In the Shipping Trade there has been a fairly active demand, with, if anything, rather better prices observable, 7*s.* 3*d.* to 7*s.* 6*d.* having been got for good qualities of steam coal delivered at the High Level, Liverpool, or the Garston Docks.

The continued depressed condition of all branches of the Iron Trade in this district, and the absence of any buying beyond absolute present requirements, even at prices which it is known do not, in many cases, cover the bare cost of production, is compelling makers to resort to a reduction of the output as the only possible alternative, and a number of the furnaces in the district are either being damped down or blown out. For pig-iron prices remain much the same as last quoted, but the weight of business being done is extremely small. Hematites still meet with only a very small enquiry, and there is a good deal of underselling to secure orders. Finished iron is nominally unchanged as regards the quoted rates; but where sellers have good specifications for prompt delivery they can readily obtain concessions upon makers' list prices.

Moderate orders for locomotives have recently been placed in this district, but generally the weight of new work coming forward in the engineering trade is only small; and, although most of the local firms have orders in hand to keep them fairly employed for the next two or three months, a slackening off is reported as a rule.

TRADE IN SOUTH WALES.

July 24.—Although merchants are pressed with business, and unable to cope with their numerous orders, the miners of the Rhondda Valley lost a day on Monday to hear Messrs. Burt and Bradlaugh discourse on their grievances, both social and political. These meetings, as far as regards such questions as "weekly pays," and the necessity for additional mine inspectors, are healthy and useful, but when talk is indulged in with regard to the burning of Nottingham Castle, and other deeds of violence in connection with a previous Reform Bill, it is decidedly reprehensible. The miners, however, have too much common sense to be led away by such "bunkum," and they have proceeded with their work since Monday as if no political fireworks had been let off. The amount of coal sent away from Cardiff last week was 140,667 tons foreign, and 19,737 coastwise, with 1750 tons patent fuel; Newport, 37,073 tons foreign, and 22,707 coastwise; Swansea, 17,557 tons foreign, and about 14,000 coastwise, with 6850 tons patent fuel. House coal is in weak demand, but a fair trade is being done in small steam coal and patent fuel.

There is nothing new to report in the iron and steel trades. Cardiff sent away last week 2150 tons, and Newport 2400 tons. The arrivals of iron ore at Cardiff were 6902 tons from Bilbao, and 3288 from other places. Newport received 3350 tons from Bilbao, and 3650 from other places. Several of the closed tinworks are about to be restarted, owing to the briskness of trade. Among others, the Vernon Works at Britonferry, and others at Penclawdd, Llantrisant, and Lydbrook. Good IC coals realise 16*s.* per box, and wasters 14*s.* 9*d.*

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

July 24.—A walk over Halkin Mountains is a rather dispiriting affair at present. At the southern end the two chief lead mines in work are North Hendre and Rhosmor, where ore is still plentiful, and whose workings, if not already, could soon be drained by that great work now approaching completion—the deep adit level. But of what use is it to raise lead ore when it can be brought from Spain to the smelt works at a cheaper rate than it can be obtained from these and other mines only half-a-dozen miles distant?

So after a brilliant and successful course the Van Mine is to be wound up. It costs 500*l.* a month to keep it going, and the shareholders will not find the money, so there is no help for it. Looked at commercially or scientifically, the Van has a history which no one connected with it need be ashamed of; but, on the contrary, may well be proud.

The slate quarrymen at Festiniog have held a mass meeting, at which they have passed a resolution to the effect that as the recent reduction in the price of slates is the result of a misunderstanding between the masters, it is not fair to throw the whole burden of it upon the men. The shipment of slates from Portmadoc for the quarter ending June 30 was by sea 32,841 tons; by rail, 11,143 tons; total, 43,984 tons; showing an increase over the corresponding

quarter of last year of 2994 tons by sea and 2201 tons by rail. These figures do not favour any idea of a decline in the trade.

Several of the quarries in Carnarvonshire have received considerable orders. Some of the smaller quarries partake in this accession of trade. Work has been resumed at Galt-y-fedw, Nantlle, and it is reported that the quarries near Bettws Gernon are about to resume work. A change is taking place in the manner of carrying on the slate trade. Formerly the stocks were kept at the great slate depôts; now they are kept in each quarry, and the orders are sent direct to the quarries.

Notwithstanding the present stagnation in the coal trade, means are found for a little recreation. The New British Iron Company took their workmen from the Wynnistay Collieries, numbering about 500, together with their friends, to Liverpool, for a trip. Acts of this kind tend to foster a kindly feeling between employers and employees.

A sad accident, resulting in the loss of four lives, took place at the Vauxhall Colliery, near Ruabon, on Wednesday last. Two of the men were ramming a charge of powder with an iron bar, when it is supposed that some sparks ignited the powder, which exploded, killing the two men and two others who were working near to them. In the late subsidence of land in the salt district a carriage manufactory was swallowed up entire. The railway up the Tamar Valley to Llangynog, for which an Act was obtained nearly three years ago, has not yet been commenced, and, with the exception of two slate quarries, only partially employed, all the works up that valley are at a standstill. This is the third or fourth Act for a railway that has been obtained without any further result.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

July 24.—The supply of native coal is rather larger this week than last, the number of collieries at work having increased in the interval. But even were the supply no larger the market would not be concerned, since the demand for all sorts is at the present time very limited. Prices are without strength on the basis of 7s. per ton for best forge coal, and 6s. down to 5s. per ton for common. Rough slack is in proportionately better demand than large coal, and is stiffer in price. Buyers of pig-iron assert that they cannot afford to give the value of the last bargains, and sellers have to be content with small profits. Derbyshire pigs are said to be selling in some instances at prices which cannot leave any profit. All-mine pigs are 80s. nom. for cold blast, and 60s. for hot blast, but selling prices at from 2s. 6d. to 5s. per ton less. Hematites are dull at 55s. to 56s. Cinder pigs are 35s. as the minimum. The finished iron trade shows no improvement at all since last report, and prices are rather weaker.

The appearances at present are not in favour of the ironworkers wages question being speedily settled. A meeting of the men was held on Monday, at Brierley Hall, and it was determined to oppose any reduction, believing that the present state of trade did not warrant it. It was also decided to ask for an advance on Aug. 23, the date when the masters claim a drop of at least 2½ per cent.

There are not wanting indications that the strike of colliers is drawing to an end. The men seem afraid that they will not be able to much longer keep the wolf from the door, and some of them have adopted the wise course of submitting to the drop. Those employed at the Cradley Heath, Ramrod Hall, Warren's Hall, Saltwells, and Clay Croft Collieries of the Earl of Dudley have been the first to submit. The masters remain as firm as ever, and Mr. Fisher-Smith has begun to carry out his threat of shutting down the pits on his lordship's domain. The royalty masters, too, on the same field have given 14 days' notice of their resolve to enforce the awarded reduction. Several hundreds of men will thus have to swell the number of those out on strike. Some of the men's leaders have advocated the hazardous course of calling all the men out on strike who are receiving the old wages, but other of the leaders have successfully resisted this policy, urging that it would mean a suspension of funds. The net total subscribed for the first three weeks of the strike is estimated at 1000l. The unionists are receiving 10s. per week and the non-unionists 1s.

A colliery explosion took place at West Bromwich, on Wednesday, resulting in serious injuries to three pikemen. They were engaged in "holing" in the main workings at the Ebenezer Colliery, owned by Messrs. Field, when they suddenly came upon an accumulation of gas which was carried by the current of air to their candles, the issue being an immediate explosion. The mine was considered to be very safe, and the explosion is attributed by the Inspector of Mines to the influence of a storm which raged in the district during Tuesday night, or to a sudden gathering of air in the workings.

THE DEVONSHIRE EXCURSION OF THE GEOLOGISTS' ASSOCIATION.

The excellent programme that had been prepared for the "long excursion" of the Geologists' Association was fully referred to in the *Mining Journal* of July 5, and the trip has been in every respect as enjoyable as could have been desired. The party reached Plymouth on Monday, Dr. Hicks, F.G.S., President; Dr. Foulerton, F.G.S., secretary; Dr. Maybury, Mr. Holmes, F.G.S., Messrs. H. H. Williams, S. Webb, W. H. Leighton, J. Doverton, W. H. Wickes, E. P. Newcombe, W. H. Bartlett, J. Macpherson, and others being among the first arrivals. Early in the evening Mr. R. N. WORTH, F.G.S., the director for the Plymouth district, gave a brief description of the leading features of the local geology as more immediately connected with that neighbourhood. They were standing, he said, at nearly the central point of the most important development in the Plymouth area of the limestones of South Devon. These limestones were commonly classed as middle Devonian, and he, for his part accepted that definition. Below this, to the north, lay a mass of shales and slates, in which he recognised three successive divisions—one associated with lodes and elvans; a second largely mixed with interbedded lava and ash beds; and a third composed of more compact slates, purple and green in colour. At several points the slates graduated up into the limestones through calcareous slates; but at others there was a band of trap rock in close proximity to or touching the limestone, which had occasionally produced alterations in its character. The limestone itself, as they could see, formed a ridge about half-a-mile in width, the upper surface of which had a wall-like or terraced character—a platform of denudation—which was not peculiar, however, to the calcareous beds of Plymouth. There were several features in the occurrence of the local limestone which pointed back to their origin as a fringing coral reef, and the different classes of organic remains found in them were largely disposed, not so much in horizons, but in areas—corals and bivalves and univalves having their own associations. Though the limestone band was composed of the hardest rocks in the locality, it could be seen that it was broken through at several points—where it was passed by the Tamar and the Plym, and by Stonehouse Creek, Mill Bay, and Sutton Pool. These openings, though, of course, mainly worn and eroded by subsequent causes, were, he believed, in their origin produced by the operations of the forces which had so greatly disturbed the strata to the south. The depth of the river channels within the limestone was remarkable. At Laira Bridge the bed of the rock was 80 ft. below high-water mark; but immediately in front of them, between Drake's Island and the Main, there were points where there was a depth of over 100; in fact, it was precisely within the limits of the limestone that the greatest depths in the harbour and its branches were to be found. As the main characteristic of the rocks directly north of the limestone was slate, so that of the rocks immediately to the south was sandstone. The twin elevations of Staddon and Maker Heights, east and west of the Sound respectively, were composed of red and grey Devonian sandstones and grits, which Mr. Worth was inclined to correlate with those of Pickwell Down in North Devon. Associated with them were some patches of highly fossiliferous shales. These southern grits and their connected shales were much contorted and disturbed; in fact, Professor Phillips had called the contortions at Staddon "amazing," and Professor Jukes, while giving up their solution as hopeless in the time he had at his disposal, suggested that possibly these apparently overlying rocks might be really underlying and brought up by an anticlinal, accom-

panied by inversion and contortion. This view, however, Mr. Worth did not accept. The displacements of the rocks on the west of the Sound were partially caused by the occurrence of a mass of intrusive triassic trap, which was associated with a patch of triassic breccia and conglomerate, the most westerly outlier of the trias in the country. But the contortions on the east of the Sound were more marked, and accompanied by what seemed traces of metamorphism. This was possibly to be connected with the fact that the Channel contained a large submarine area of granitic or granitoid rocks. The Eddystone reef, the tower crowning which they saw on the horizon, was a mass of gneiss and allied rocks, and there was some evidence that these rocks extended into Plymouth Sound, and formed part of the Shovel Reef, on which the Breakwater was built. Standing on the Hoe, therefore, they occupied a position from which they could see the two boundaries of the stratified rocks of the Plymouth district, north and south—the granite of Dartmoor and the gneiss of the Channel. Turning to more recent geological phenomena, Mr. Worth pointed out the quarries at Oreston, where, in 1816, the first bone cave which was made the subject of scientific enquiry was found, several others occurring since. Fissures on the Hoe had also proved ossiferous, and had yielded bones which were practically identical with the recognised cavern fauna. Besides this they had, contiguous to the Hoe, at Sandycove, in Millbay, the remains of one of the submarine forests that occurred at frequent intervals along the western shores; and on the Hoe itself was one of the finest examples of a raised beach in the country. By a fortunate coincidence, after having been hidden for some 40 years, the beach had again been exposed within the past few weeks, and had proved to be precisely identical in character with that which had been described by the geologists of a former generation.

This portion of the investigation was rendered particularly interesting by Mr. Worth pointing out the beach left. This was examined with much interest, and recognised as truly a beach by all the geologists present. At the finest section he had counted and measured 18 distinct beds of sand and pebbles between the bouldered masses which lay immediately above the limestone shelf on which the beach rested and the head of surface soil. By a singular mistake this beach has been confounded by some observers with a totally distinct set of deposits which occurred on the top of the Hoe, and at other points on the limestone plateau. Huge cavities or pockets in the limestone were found filled with deposits of sand and clay and water-worn stones, and it was assumed that these and the beach were identical. One suggestion was that they were all so-called "Northern drift." No geologist, however, who had ever taken the trouble to examine the two could confound them. The summit and fissure beds were distinctly alluvial, the high level deposit of an ancient river. Their character, moreover, was well marked. The clay occurred in patches of white and red, mingled with veins and beds of sand. The pebbles ranged from a very small size up to a dozen pounds in weight. They were chiefly quartzose, some schorlastic, a few granitic or granitoid, some of a dark hard hornblende or altered slate. An occasional pebble of trap or basalt, and a few flints (green sand?) also occurred. The sand was highly silicious. Now, for these deposits to be identical with those of the raised beach involved no less than a miraculous change of their whole character in their descent over the slopes of the hill some 80 ft., the most remarkable instance of metamorphism on record. The raised beach possessed no single one of these characteristics. There was no clay, the sand was of a totally distinct nature and origin, and the pebbles, instead of having been derived from a distance, were wholly composed of the rocks at present exposed on the shores of the Sound. And the most remarkable feature was that the limestone debris was scarce, and that the material had evidently come from the westward. The pebbles had been casually described as chiefly of Devonian grits, &c., but the real fact was that the triassic trap of Cawsand was, as a rule, the rock most largely represented; while one boulder of least 2 cwt. came from a Devonian trap exposure at Drake's Island. All this pointed to a very different contour of the Sound, at the raised beach period, than that which they would *prima facie* have anticipated. It was hardly worth while to adduce any further arguments for geologists in defence of the marine origin of the beach deposits, but he might add that he had himself obtained oyster shells from it, and that it also yielded shells of limpet, whelk, and periwinkle. The upper deposit was distinctly anterior to the beach, and in the main contemporaneous with that of the caverns. The forests were the latest of the series.

From the Hoe the party proceeded to Deadman's Bay Quarry, which Mr. Worth had chosen as illustrative of the Cattedown quarries, not only because it was the nearest of the series, but because of the peculiarities of stratification, &c., which it presented—some of the beds being approximately horizontal and others nearly vertical, as opposed to the usual southerly dip, and others again being faulted, while the crest of the quarry showed the shallow Cattedown synclinal to great advantage. Mr. Worth pointed out that this was the place where the Plymouth limestone presented the greatest irregularities. And by way of illustrating the character of the alluvial deposits which he had described in connection with the Hoe, and the absolute dissimilarity between them and the raised beach, he directed attention to a great fissure or pocket, filled with precisely the same material, the side of which had been opened out in some of the older workings of the quarry. The party were much gratified with the most interesting sections here. After Cattedown the members of the Association went to the Athenæum, in response to an invitation from the Council of the Plymouth Institution, to a *conversazione* and to inspect the museum. Here they were met by a good number of the members and associates, and heartily and happily welcomed in the name of the Institution by Mr. Daniel Slater, the President. Mr. Hicks, in acknowledging the welcome, spoke of the great value of the work done by local geologists, which was indeed, indispensable to the progress of geological science, and directed the attention of the younger students of geology to the important field of enquiry connected with the Archen rocks of the Channel, to which the Eddystone reef belonged—the foundations of the most ancient continent of which they had any knowledge. Mr. Worth subsequently directed attention to the chief features of the geological section of the museum. He pointed out some of the original specimens by which the Rev. R. Hennah established the fossiliferous character of the lime rocks of Plymouth, and the fine suite of carboniferous fossils from North Devon, presented many years ago by General Harding; and laid especial stress upon the representation of the bone caves of North Devon—everyone of which had contributed to the collection—from the discoveries of Whidby at Oreston, Northmore, and McKerny at Kent's Hole, Moore at the Hoe, and Bellamy at Yealpoint, to the more modern results of investigation by Mr. Spence Bate at Stonehouse, and his own discoveries at Stonehouse and Pomphlet. Attention was also directed to the petrological collection, now assuming an important character in the illustrations of the rocks of the district, first commenced nearly three score years ago by Mr. John Prideaux, and enriched by an interesting series of volcanic and general igneous rocks from various parts of the world.

The Devonian rocks of this Dartington district were the next object of the Association's attention. Mr. A. Champenowne, F.G.S., now assuming the direction. Mr. Champenowne is one of the few local geologists who has thoroughly worked out the district both stratigraphically and paleontologically, and whose latest service has been a considerable addition to our knowledge of a very interesting group of Devonian corals. Leaving Plymouth by the 8.35 A.M. train a halt was made at Totnes to inspect the antiquities of that notable old town, of which Mr. Edward Windeatt is the accomplished chronicler. The castle, church, walls, and gates, the remains of the Priory, the ancient Guildhall, and last, not least, the quaint piazzas—which, if at some distance, never fails to recall Chester to those who are (as several of the party were) familiar with the "rows"—each and all lent their quota of interest. Then a start was made for Dartington Vale, where the party were heartily welcomed by Mr. Champenowne, who acted not only as their director for the geology of the neighbourhood, but as their host at his fine ancestral seat, where they found a hospitable and most acceptable table. The ruins of the ancient hall, built by the Hollands, Dukes of Exeter

temp. Richard II., with the accessory buildings, excited much interest, and Mr. Champenowne gave a brief outline of the history of this famous mansion, and thus laid his visitors under a triple debt of gratitude. Most of the chief points of interest in the Dartington synclinal trough, which Mr. Champenowne has so thoroughly worked out, were visited, and explained—including slates, tuff beds, blue limestone above the middle Devonian limestone. The limestone quarries—those at Pit Park and Shinner's Bridge—reserved by way of *bonne-bouche* for after lunch. The trap series of this locality are varied and full of interest, especially the President, Dr. Hicks, who has given much attention to the rocks, and include diabase tuffs, schalstein, and dolerite, while of the eruptive series in the middle Devonian limestone, has a remarkable orbicular structure. Purple and green clay-slates were noted at Plymouth.

Torquay was the locality arranged to be taken for Wednesday labours, and the members were certainly fortunate in being placed under the direction of Mr. W. Pengelly, F.R.S., F.G.S., whose labours have made Torbay classical ground with the student geologist. All things considered, no locality in Devon presents many and such varied features of geological interest, and no one at once so familiar with the phenomena of the district, and has so thoroughly worked out all its problems—which are neither few nor light—as Mr. Pengelly. Not merely are the Devonian limestones to be studied there to excellent advantage, but the triassic series was in the "red rocks" here that the curious beekites was first found but passing over an enormous interval in geological space and the leading features of the more recent geological phenomena of county—cavern deposits, raised beaches, and submerged forests—Mr. Pengelly had arranged his route so as to enable his visitors to see all that could possibly be seen in the space at their disposal. Starting from the Torquay railway station, the coast was skirted. Hope's Nose, the northern horn of Torquay—the chief objects of interest to be noted *en route* being the submerged forest on the Abbey sands, which has yielded not only relics of the extinct mammoth, but evidence of man's contemporaneity in implements of horn and of flint; the place of junction of the prias and Devonian limestone, the finest illustration of which, however, is that in Babbacombe Bay; the contortions in the limestone at Torquay; the clearance at Meadfoot; the contorted and cleaned limestone at Hope's Nose, and the raised beach on that headland.

The visit to Kent's Hole, which was planned to succeed stratigraphical work of the day, was, however, the most anxious anticipated item; and this famous cavern was never visited by more interested party. Its recorded history, if inscriptions may be taken as a starting point, dates for some three centuries; and of many myriads of years it has been proved to contain the record we can say? Its exploration by the British Association, under the direction of Mr. Pengelly, has made it the most famous cavern—scientifically speaking—in the whole world. It has yielded thousands of thousands of relics of the highest interest and value in relation to the conditions of existence of early man and of now extinct mammals, and it has given birth to a veritable library of descriptive and controversial literature. Had its original investigators—Mr. North and Mr. McEvery, or, at any rate, the latter—had their minds less receptive to the evidence it afforded, the question of the high antiquity of man would have been probably settled half a century since. Here, as at Oreston, direct evidence was either ignored or destroyed because it conflicted with preconceived opinions, and thus it was Windmill Hill Cavern at Brixham, and not Kent's Hole, that led the way in establishing the contemporaneity of man with the mammoth and its associates. To be able to visit such a famous channel record chamber of the geological past as Kent's Cavern has proved under the guidance of such a renowned cavern-hunter as Mr. Pengelly—who has literally spent whole years of his life in its exploration and in investigating and setting forth its characteristics—is a scientific treat of no small moment, and so the members of the Association evidently thought, especially as they were able to follow in an inspection of the finest scenes of the mammalian and human prehistoric remains which the cavern has yielded in the museum of the Torquay Natural History Society.

On Thursday Mr. R. N. Worth again assumed office, the arrangements being to take the route from Millbay to Bickleigh, and turn by way of Dousland Barn. The ground was chosen from a desire to afford opportunities for a study of the granitic rocks of the borders of Dartmoor and of the altered Devonians skirting the For this purpose a better selection could not have been made. Ford Down, on the north-west flank of which the Dowerstone is in all its massive grandeur, is the most accessible mass of granite in the vicinity of Plymouth. Moreover, it is something more than a mere spur of the moorland plateau, for it projects into the Devonian area peninsular fashion, and is surrounded practically on three sides by rocks, which display in varying degree important illustrations of contact metamorphism. The micaceous schists of Meavy and of Shaugh are brought prominently into notice in the well-known Report of the indefatigable De la Beche; but he does not pursue the subject into its minutest details, and indicate the different gradations by which the alteration dies rapidly away as we recede further from the edge of the granite. Nor does he define precisely the extent of the zone of alteration. To do more than he did, however, impossible at the time, and under the conditions on which his work was carried on, and later geologists have enjoyed the facilities which to him were unknown. The altered rocks are clearly traceable, from their contact with the granite as well-defined micaceous schist—in patches almost gneissic in character—through andalusite schists of varying degrees of "spottiness," until the indication of change is seen in a slight silkiness of texture which has still its variations and its stages. In the neighbourhood of a bridge the andalusite appears less in the form of chistolite; chistolite characters are distinctly seen on this extreme western edge of the moor near Shaugh; while nearer Ivybridge, in the edge of the altered schists of Cornwood, andalusite is developed more strongly than at any other point. Another class of altered rocks for which the rocks afford excellent opportunity for study, is the schorlaceous. Schorl or tourmaline is commonly developed in the border granites of the moor; and the mixture of schorl and quartz known as schorl rock, is of frequent occurrence in this locality. Good contact specimens have also occurred in this neighbourhood between ordinary schorl rock and schorl schist of a very interesting character.

As to the granites and elvans, there is probably a greater variety of them to be found in the valley of the Plym than at any other point of the moorland. The quarries at the Dowerstone, and Dowerstone itself, are of an average grained grey granite of ordinary type; but veins of fine grained and coloured granites are common occurrence, and the Trowlesworthy Tor contains the red granite in mass in the country—a granite that can hold its own in beauty with the very finest Scotch. Trowlesworthy, too, yielded that most beautiful of all Devonian rocks—Trowlesworthy—discovered last year by Mr. Worth. Moreover, there is much variety in the felsitic porphyries, or elvans, of the district, some of which have almost the fineness of grain and purity of colour of a statuary marble, while another variety is a peculiar flesh of dotted by nests of schorl. Then as to the exterior features of the locality, we have in the Dowerstone the finest example of semi-columnar granite on Dartmoor, though it will not compete with Tol-pedn-penwith, or some of the other porphyries in the Land's End district. Moreover, the "clatter" of Shillington, where the "pixies cave" is snugly hidden among the confused heap of granite blocks which shrouds the hill as a notable illustration of this peculiar form of degradation, the "everlasting hills" as can be found anywhere. Nor are the features of interest wanting. Examples of "weathering" of granite character abound, and some of the results are very striking though one has to go further into the moor to find the best illustrations of that natural mimicry of Cyclopean masonry which has been the occasion of many a legend of the old days of the giants. Again, near Cudover Bridge are the clay pits which reveal the spar of the granite in its last stage of decomposition.

The route sketched out by Mr. Worth was intended to bring prominence all these features, and to afford such opportunities

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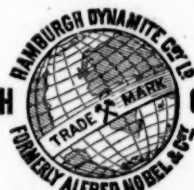
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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Divid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
12000 Bedford Unit, s. c. Tavia. (21 sh.)	0 14	0 14	1 1/4	1 1/4	0 1 0	0 1 0 May 1884
3200 Blue Hills s. c. St. Agnes	4 8	4 8	1 1/4	1 1/4	0 4 0	0 2 0 May 1881
4000 Carr Brea, s. c. Illogan	13 2	11 1/2	2 1/4	2 1/4	52 11 0	0 10 0 Nov. 1881
4000 Craignant Bach, s. c. Cardigan	1 0	0 0	2 1/4	2 1/4	5 0 0	0 5 0 Nov. 1882
10240 Devon St. Consols, s. c. Tavistock	10 14	10 14	2 1/4	2 1/4	118 7 0	0 0 0 Dec. 1880
4700 Dolcoath, s. c. Camborne	1 0	0 0	2 1/4	2 1/4	38 6 0	0 1 0 May 1884
4000 East Pool, s. c. Illogan	0 9	4 1/4	42	42	39 15 0	0 18 0 May 1884
12000 Great Holway, s. c. Flintshire	5 0	0 0	0 0	0 0	0 12 0	0 7 0 Sept. 1883
15000 Great Laxey, s. c. Isle of Man	4 0	0 0	0 0	0 0	30 3 0	0 5 0 May 1884
4000 Great Laxey, s. c. Isle of Man	4 0	0 0	0 0	0 0	4 16 0	0 5 0 Dec. 1883
9830 Gunnislake (Clitters), s. c.	2 2	0 0	0 0	0 0	0 19 0	0 2 0 Mar. 1882
2800 Isle of Man, s. c. Isle of Man	25 0	0 0	0 0	0 0	83 5 0	0 1 0 Sept. 1880
6000 Killbreth, s. c. Chacewater	4 8	0 0	0 0	0 0	0 14 0	0 2 0 Nov. 1883
20000 Leadhills, s. c. Lanarkshire	13 15	0 0	0 0	0 0	5 0 0	0 3 0 Sept. 1883
10000 Melanar, s. c. Hayle	2 0	0 0	0 0	0 0	2 4 0	0 10 0 June 1883
9000 Miners Mining Co., s. c. Wrexham	5 0	0 0	0 0	0 0	69 11 0	0 2 0 Feb. 1884
80000 Mining Co. of Ireland, s. c.	7 0	0 0	0 0	0 0	24 0 0	0 2 0 Jan. 1884
11320 North Hendre, s. c. Wales	2 10	0 0	0 0	0 0	3 18 0	0 4 0 Nov. 1882
8146 Ditto	1 5	0 0	0 0	0 0	0 11 0	0 2 0 Nov. 1882
12000 Phoenix United, s. c. Linkinshires	6 2	9 2	2 1/4	2 1/4	17 7 0	0 1 0 Apr. 1883
12000 Roman Gravel, s. c. Balp.	7 10	0 0	0 0	0 0	9 11 0	0 5 0 May 1883
9123 South Courdunrow, s. c. Camborne	7 16	7 9	0 0	0 0	11 1 0	0 6 0 Apr. 1884
8000 South Darren, s. c. Cardigan	1 16	3 4	0 0	0 0	1 1 0	0 2 0 Apr. 1884
4000 Tincroft, s. c. Pool, Illogan	14 2	0 0	0 0	0 0	3 4 0	0 5 0 Dec. 1881
15000 Van, s. c. Llanidloes (s. c. Big)	4 5	0 0	0 0	0 0	25 13 0	0 2 0 Jan. 1881
15000 West Holway, s. c. Flintshire	1 0	0 0	0 0	0 0	1 0 0	0 1 0 Oct. 1881
6000 West Basset, s. c. Illogan	7 10	4 3/4	3 1/4	3 1/4	28 3 0	0 8 0 Apr. 1882
6000 West Killy, s. c. St. Agnes	3 12	0 0	0 0	0 0	2 9 0	0 10 0 Mar. 1884
6000 Wheat Agar, s. c. Illogan	19 6	0 0	0 0	0 0	0 15 0	0 10 0 June 1884
12000 Wheel Crebor, s. c. Tavistock	2 4	0 0	0 0	0 0	1 1 0	0 3 0 Nov. 1883
1024 Wheel Eliza Consols, s. c. Austell	18 0	0 0	0 0	0 0	59 0 0	0 1 0 Nov. 1883
6000 Wheel Greenville, s. c. Camborne	15 0	0 0	0 0	0 0	2 0 0	0 2 0 June 1884
4295 Wheel Killy, s. c. St. Agnes	12 0	0 0	0 0	0 0	12 18 0	0 1 0 Jan. 1881
3000 Wheel Peavor, s. c. Redruth	13 13	0 0	0 0	0 0	8 13 0	0 4 0 Mar. 1881

FOREIGN DIVIDEND MINES.

Shares.	Divid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
35500 Alamillos, s. c. Spain	2 0	0 0	1 1/4	1 1/4	2 15 0	0 2 0 Mar. 1884
130000 Almaden and Tinto Consol., s. c.	1 0	0 0	1 1/4	1 1/4	9 6 0	0 1 0 May 1876
20000 Australian, s. c. South Australia	7 7	0 0	2 1/4	2 1/4	1 9 0	0 2 0 Aug. 1883
15000 Birdseye Creek, s. c. California	4 0	0 0	1 1/4	1 1/4	1 7 0	0 2 0 June 1884
30000 Bratsberg, s. c. Norway	2 0	0 0	1 1/4	1 1/4	4 4 0	0 2 0 Mar. 1884
130000 California, s. c. California	1 0	0 0	1 1/4	1 1/4	57 17 0	0 11 0 June 1884
20000 Cape Copper Mining, s. c. South Africa	1 0	0 0	1 1/4	1 1/4	57 17 0	0 11 0 June 1884
65000 Colorado United, s. c. Colorado	5 0	0 0	1 1/4	1 1/4	3 14 0	0 1 0 May 1883
50000 Copiapu, s. c. Chile (24 shares)	3 10	0 0	2 1/4	2 1/4	2 15 0	0 1 0 June 1884
70000 English and Australian, s. c. S. Aust.	2 10	0 0	1 1/4	1 1/4	3 9 0	0 1 0 Mar. 1884
2000 Eng.-Aus., s. c. Vict. (20000 o.)	1 0	0 0	1 1/4	1 1/4	3 3 0	0 3 0 Apr. 1882
25000 Fortuna, s. c. Spain	2 0	0 0	1 1/4	1 1/4	11 5 0	0 2 0 Mar. 1884
72000 Frontino and Bolivia, s. c. New Gran.	2 0	0 0	1 1/4	1 1/4	8 12 0	0 1 0 Dec. 1883
400000 La Plata, s. c. Leadville	1 0	0 0	1 1/4	1 1/4	0 6 0	0 7 0 Oct. 1882
5000 Linars, s. c. Spain	1 0	0 0	1 1/4	1 1/4	19 10 0	0 10 0 June 1884
20000 Marbella Iron Ore, s. c. Spain	1 0	0 0	1 1/4	1 1/4	0 10 0	0 10 0 June 1884
18154 Mason and Barry, s. c. Portugal	10 0	0 0	1 1/4	1 1/4	3 15 0	0 15 0 Apr. 1884
100000 Oxford, s. c. Nova Scotia	0 4	0 0	1 1/4	1 1/4	0 1 1/2	0 1 1/2 Mar. 1884
80059 Quebrada Real, s. c. Land and Cop. Venezuela	10 0	0 0	1 1/4	1 1/4	6 per cent.	0 0 0
50000 Pampulillo, s. c. Chile	4 0	0 0	1 1/4	1 1/4	2 0 0	0 2 0 May 1884
25000 Pitangui, s. c. Brazil (in 6000 £1 pd.)	0 10	0 0	1 1/4	1 1/4	0 1 0	0 1 0 Sept. 1880
1400 Pontgibaud, s. c. France	20 0	0 0	1 1/4	1 1/4	30 3 0	0 11 0 Dec. 1883
100000 Port Phillip, s. c. Clunes (22 shares)	1 0	0 0	1 1/4	1 1/4	1 14 0	0 10 0 Feb. 1881
50000 Rara Fortuna, s. c. Argent. Republic	1 0	0 0	1 1/4	1 1/4	17 17 1/2	0 1 0 July 1882
54000 Richmond Consol., s. c. Nevada	5 0	0 0	1 1/4	1 1/4	14 15 0	0 5 0 Aug. 1883
24532 Rio Tinto, s. c. Mortgage Bds., Rueda	10 0	0 0	1 1/4	1 1/4	5 per cent.	0 0 0
325000 Ditto, shares	0 0	0 0	1 1/4	1 1/4	4 6 0	0 16 0 May 1884
40000 Santa Barbara, s. c. Brazil	0 10	0 0	1 1/4	1 1/4	0 12 0	0 1 0 May 1882
12000 Schwab Gully, s. c. Kimberley	10 0	0 0	1 1/4	1 1/4	6 2 0	0 10 0 June 1884
120000 Scottish-Australian Mining Co.	1 0	0 0	1 1/4	1 1/4	15 p. cent.	0 0 0 Nov. 1883
80000 Ditto, New	0 10	0 0	1 1/4	1 1/4	15 p. cent.	0 0 0 Nov. 1883
22500 Sierra Buttes, s. c. California	2 0	0 0	1 1/4	1 1/4	2 8 0	0 6 0 Apr. 1884
4025 Ditto, Plumas Eureka	2 0	0 0	1 1/4	1 1/4	3 0 0	0 2 0 Apr. 1884
253000 St. John del Rey (25 Stock and multiple debt in)	65 75	0 0	1 1/4	1 1/4	0 6 0	0 6 0 Aug. 1882
100000 Tambora, s. c. W. Ynaad	2 0	0 0	1 1/4	1 1/4	6 18 0	0 11 0 May 1883
825000 Tharsis, s. c. Spain (587330 issued)	2 0	0 0	1 1/4	1 1/4	6 18 0	0 11 0 May 1883
14000 Tolima, s. c. Colombia (A shares)	5 0	0 0	1 1/4	1 1/4	4 16 0	0 10 0 June 1884
6000 Ditto (B shares)	5 0	0 0	1 1/4	1 1/4	0 0 0	0 0 0
25000 Victoria (London), s. c. Australia	1 0	0 0	1 1/4	1 1/4	0 13 0	0 0 0 Feb. 1881
124221 United Mexican, s. c. Mexico	9 17	0 0	1 1/4	1 1/4	0 2 0	0 2 0 May 1884
100000 Victorine (Nevada, U.S.) Deb. Bds.	1 0	0 0	1 1/4	1 1/4	0 0 0	0 6 0 June 1882
15000 Western Andes, s. c. Colombia	3 0	0 0	1 1/4	1 1/4	4 5 0	0 2 0 Oct. 1883
2100 W. Prussian (55000 pref. sh. £10 pd.)	10 0	0 0	1 1/4	1 1/4	4 2 0	0 8 0 Apr. 1881
135000 Torke Pen., s. c. South Aust. Pref. sh.	1 0	0 0	1 1/4	1 1/4	0 3 0	0 3 0 May 1882

Have made calls since last dividend was paid.

NON-DIVIDEND BRITISH MINES.

Shares.	Divid.	Last wk.	Clos. pr.
12000 Aberdun, s. c. Denbigh	1 10	0 0	1 1/4
12000 Anderton, s. c. s. c. Devonshire	1 2	0 0	1 1/4
12000 Asheton, s. c. Carnarvonshire	5 0	0 0	1 1/4
10000 Brada, s. c. Isle of Man	1 0	0 0	1 1/4
30000 British, s. c. s. c. Devonshire	1 0	0 0	1 1/4
20000 British Manganese Company	1 0	0 0	1 1/4
20000 Bwlch United, s. c. Cardigan	1 0	0 0	1 1/4
12000 Collacombe Consols, s. c. M. Lamerton	0 2	0 0	1 1/4
50000 Carn Camborne, s. c. s. c. Camborne	1 0	0 0	1 1/4
37500 Carnarvonshire Cons., s. c. Llanrwst	2 0	0 0	1 1/4
6400 Cashwell, s. c. Cumberlan	2 19	0 0	1 1/4
6000 Cathedral, s. c. Gwynnap	1 12	0 0	1 1/4
20000 Central Foxdale, s. c. Isle of Man	1 17	0 0	1 1/4
25000 Coed-y-Fedw and Pant-y-Buarth, s. c.	1 0	0 0	1 1/4
30000 Cook's Kitchen, s. c. Illogan	35 14	9 11	10 11
24500 Craigell, s. c. M. Denbighshire	0 17	0 0	1 1/4
38400 Crook Burn, s. c. Cumberlan	0 17	0 0	1 1/4
48723 D'Eschey Mountain, s. c. M. Llanrwst	0 10	0 0	1 1/4
12000 Derwent, s. c. M. Durham	1 0	0 0	1 1/4
60000 Devon Friendship, s. c. s. c. Tawick	1 0	0 0	1 1/4
12000 Devon Great United (21 shares)	1 17	0 0	1 1/4
50000 Drakewall, s. c. s. c. Calstock	0 15	0 0	1 1/4
50000 Duchy Peru, s. c. s. c. Cornwall	1 0	0 0	1 1/4
12000 East Blue Hills, s. c. St. Agnes	0 5	0 0	1 1/4
6000 East Botallack, s. c. St. Just	1 2	0 0	1 1/4
6144 East Caradon, s. c. St. Cleer	5 1	0 0	1 1/4
4000 East Chiverton, s. c. Penrynabuloe	10 17	3 0	1 1/4
30000 E. Craven Moor, s. c. Pateley Bridge	1 0	0 0	1 1/4
20000 East Devon Cons., s. c. Buckfastleigh	2 0	0 0	1 1/4
25000 East Roman Gravel, s. c. s. c. Wales	1 0	0 0	1 1/4
18000 East Van, s. c. Llanidloes	1 0	0 0	1 1/4
2048 East Wheel Lovell, s. c. Helston	20 3	0 0	1 1/4
100000 East Wheel Rose, s. c. s. c. Newlyn East	1 0	0 0	1 1/4
25000 Eoton, s. c. s. c. Wotton	1 0	0 0	1 1/4
12500 Frongoch, s. c. s. c. Cardigan (10000 sh. iss.)	2 0	0 0	1 1/4
12000 Gawton, s. c. Tavistock	2 5	0 0	1 1/4
40000 Glas. Car. (300000 sh. iss.)	10000	15 0	1 1/4
30000 Gobbett, s. c. Devon	0 1	0 0	1 1/4
10000 Goddards, s. c. s. c. Carnarvon	1 0	0 0	1 1/4
32000 Goginan, s. c. s. c. Cardigan	1 0	0 0	1 1/4
25000 Godever, s. c. St. Cleer	1 0	0 0	1 1/4
8500 Gorseid and Merlyn Cons., s. c. Flint	2 10	0 0	1 1/4
6000 Great West Chiverton, s. c. St. Agnes	0 8	0 0	1 1/4
50000 Great W. Shepherds, s. c. Cornwall	1 0	0 0	1 1/4
20000 Grogwinion, s. c. Cardigan	2 0	0 0	1 1/4
10000 Gwynn-y-Mynydd, s. c. s. c. Flint (pref.)	4 0	0 0	1 1/4
70000 Gwydyr Anal, s. c. s. c. Carnarvon	1 0	0 0	1 1/4
8400 Hardshins, s. c. Westmore. (10s. sh.)	0 2	0 0	1 1/4
12000 Herodsfoot, s. c. near Liskeard	1 0	0 0	1 1/4
18000 Hingston Downs, s. c. Calstock	0 13	0 0	1 1/4
35000 Holway Consols, s. c. s. c. Flintshire	1 0	0 0	1 1/4
25000 Kit Hill Gt. Cons., s. c. s. c. m. (21 sh.)	1 2	0 0	1 1/4
15000 Lady Ann, s. c. s. c. Llanarmon	1 0	0 0	1 1/4
15000 Llandegla, s. c. s. c. Wales	1 0	0 0	1 1/4
5120 Lovell, s. c. Wendron	0 16	0 0	1 1/4
9000 Marke Valley, s. c. Linkinshires	7 12	6 1/4	1 1/4
6000 Medlyn Moor, s. c. Wendron	1 5	0 0	1 1/4
8000 Mona, s. c. s. c. Anglessea	5 0	0 0	1 1/4
20000 Mona Consols, s. c. s. c. Anglessea	1 0	0 0	1 1/4
20000 Mostyn Consols, s. c. s. c. Flint	1 0	0 0	1 1/4
12000 Morla Du, s. c. s. c. Anglessea	1 0	0 0	1 1/4
80000 Mounts Bay, s. c. s. c. Breage	1 0	0 0	1 1/4
6144 Mount Carbis, s. c. s. c. Redruth	1 15	0 0	1 1/4
12000 New Caradon, s. c. St. Cleer	0 6	0 0	1 1/4
2400 New Cook's Kitchen, s. c. Illogan	10 5	6 1/4	1 1/4
8000 New Dolcoath, s. c. s. c. Camborne	3 0	0 0	1 1/4
10000 New Holmbush, s. c. s. c. Callington	3 0	0 0	1 1/4
8000 New Killy, s. c. St. Agnes	1 5	0 0	1 1/4
25000 New Langford, s. c. s. c. Callington	0 2	0 0	1 1/4
15000 New Redruth, s. c. s. c. Callington	0 2	0 0	1 1/4
17500 New Trearrog, s. c. St. Austell	2 0	0 0	1 1/4
3500 New Tincroft, s. c. s. c. Lelant	6 0	0 0	1 1/4
12000 New Trumpet, s. c. s. c. Wendron	1 0	0 0	1 1/4
8000 New Van Cons. & Glyn, s. c.	7 0	0 0	1 1/4
12000 New West Caradon, s. c. Liskeard	0 7	0 0	1 1/4
3000 New Wheel Peavor, s. c. Redruth	0 10	0 0	1 1/4
12000 North Blue Hills, s. c. St. Agnes	0 2	0 0	1 1/4
5328 North Bury, s. c. s. c. Scorrier	2 4	0 0	1 1/4
10000 North D'Eschey Mountain, s. c. s. c. M. Carnarvon	1 0	0 0	1 1/4
25000 North Goginan, s. c. s. c. Cardigan	1 0	0 0	1 1/4
6400 North Green Hurth, s. c.	1 0	0 0	1 1/4
25000 North Grogwinion, s. c. s. c. Cardigan	1 0	0 0	1 1/4
12000 North Herodsfoot, s. c. Liskeard	0 13	0 0	1 1/4
2000 North Levant, s. c. St. Just	13 15	0 0	1 1/4

NON-DIVIDEND MINES—continued.

Shares.	Divid.	Last
50000 North Molton, * c, mu, i, Devon	1 0	0 ..
8000 North Penwith, s, c, Gwynnap	3 9	0 ..
2938 North Trekerby, c, St. Agnes	1 0	0 ..
8000 Northor, i, Durham	8 17	10 ..
40000 Knel Tern, * s, c, c, Calstock	1 0	0 ..
80000 Old Shepherds s, i, Cornwall	1 0	0 ..
60000 Owen Veau & Tregur, * s, c, Marazion	1 0	0 ..
45000 Parya Corporation, c, c, Angleses	1 0	0 ..
7500 Pateley Bridge, i, Yorkshire	1 0	0 ..
6000 Pedn-an-drea, i, Redruth	4 10	0 ..
6000 Pennant, i, bar, North Wales*	5 0	0 ..
20000 Penegarreg, i, Carmarthenshire	1 0	0 ..
1500C Pen-yr-Osneid, s, i, Flintshire	1 0	0 ..
15000 Perran Consols	1 0	0 ..
12000 Perran Wheal Alfred, c	0 2	6 ..
10000 Polberr, s, St. Agnes	0 2	0 ..
6000 Polbrebo, i, Crownan	0 18	6 ..
4516 Polrose, c, Cornwall	0 15	0 ..
10000 Port Nigel Syn, * s, i, Carnar, (4000s)	0 15	0 ..
13000 Pr. Patrick, * s, i, (als. 12000 p 10 p c)	1 0	0 ..
12000 Prince of Wales, s, c, c, Calstock	1 10	0 ..
38000 Russell United, * c, Tavistock	0 19	0 ..
30000 Silver Hill, * Callington	1 0	0 ..
50000 Sincelair, * s, b, i, Northill	1 0	0 ..
40000 Smeby, c, c, Horbridge	1 15	0 ..
50000 South Carb, c, c, Redruth	0 10	0 ..
42000 So. Devon Unit, c, c, Buckfastleigh	1 0	0 ..
5000 South Dolcoath, c, i, Illogan	0 19	0 ..
6000 South Killy, i, St. Agnes	0 10	0 ..
6000 South Penwithral, c, c, Gwynnap	3 18	6 ..
30000 So. Phoenix & Caradon, * c, c, Linkinhn.	1 0	0 ..
6000 South Tolarne, c, c, c, Camborne	5 11	6 ..
2043 South West Coal Profty, c, Illogan	7 4	6 ..
6000 South West Coal Proft, c, Illogan	9 13	0 ..
30000 Standard, * i, b, i, Llanarst	1 0	0 ..
40000 Tamar, s, i, Beaulston	1 0	0 ..
12000 Tebartha Lemanne, i, Northill	0 6	0 ..
40000 Tregeho, i, c, Cornyall	4 0	0 ..
50000 Tregranton and Old Polgoon	1 0	0 ..
100000 Trevaean, * c, c, Gwynnap	1 0	0 ..
8000 Trevaunance, i, St. Agnes	0 6	0 ..
1000 Vaughan, * i, Cardiganshire	10	0 ..
50000 Weardale, * i, Northumber. (4. share)	1 2	6 ..
12000 West Assheton, i, Carnarvon	1 0	0 ..
12000 West Caradon, c, c, Clever	0 9	0 ..
30000 West Cornwall, * c, Cornwall	1 0	0 ..
12000 West Crebor, c, Tavistock	10	0 ..
12000 West Devon Consols, c, Calstock	0 11	6 ..
10240 West Gwolphin, i, c, Breage	1 3	6 ..
12000 West Gwonnema, c, St. Cleer	0 1	0 ..
20000 West Lisburne, * i, Cardigan	1 0	0 ..
12000 West Mary Ann, i, Menheniot	1 18	0 ..
20000 W. Pateley Bridge, i, Yorkshire	1 0	0 ..
12000 West Phoenix, i, Linkinhorne	1 5	0 ..
6000 West Polbrean, c, c, St. Agnes	0 11	0 ..
5000 West Polgoon, c, c, Cornyall	7 10	6 ..
5144 West Welsh Franchise, i, Illogoon	1 0	0 ..
3000 West Wheal Peesvor, i, Redruth	4 10	6 ..
2400 West Wheal Seton, c, Camborne (s)	20	0 ..
6144 Wheal Bassett, c, Illogan	9 9	6 ..
4000 Wheal Bonny, c, c, Latchley	5 0	0 ..
3000 Wheal Boys, i, Redruth	1 3	6 ..
50000 Wheal Oastle, * c, c, St. Just	1 0	0 ..
12000 Wheal Coates, i, St. Agnes	0 10	6 ..
5555 W. Comf. & No. Tre, * c, c, Gwynnap	2 2	0 ..
12000 Wheal Elizabeth, c, c, Cornwall	3 6	0 ..
12258 Wheal Jane, i, Knafl	3 6	0 ..
12000 Wheal Jewell, c, St. Hilary	1 0	0 ..
25000 Wh. Honey and Trelawny, s, i, Lisk	2 0	0 ..
12000 Wheal Lusk, i, Callington	0 3	0 ..
2000 Wheal Owies, i, St. Just	7 3	0 ..
30000 Wh. Silver & Lanteglos, s, i, Camelfid	1 0	0 ..
6000 Wheal Sisters, i, Lelant	4 2	0 ..
4096 Wheal Uny, i, c, Redruth	19 19	6 ..
21886 Wye Valley, i, Montgomery, *	1 0	0 ..
60000 Yeoland Consols, * i, Devonshire	0 12	6 ..
4000 Ytwith, i, Cardigan	1 0	0 ..